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## **REGIONAL ASSESSMENT OF THE SALINE-SEEP PROBLEM AND A WATER-QUALITY INVENTORY OF THE MONTANA PLAINS**

by

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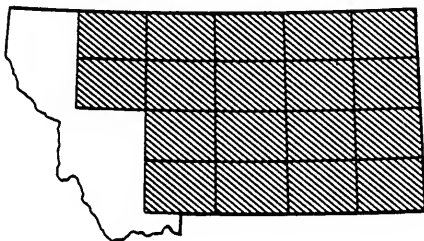
Department of Health and Environmental Sciences

with a section on

**ALGAL POPULATIONS IN SEEP-AFFECTED WATERS, WITH AN  
EMPHASIS ON SALINITY INDICATORS AND POTENTIALLY TOXIC SPECIES**

by

L. L. Bahls and P. A. Bahls



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**OLD WEST REGIONAL COMMISSION**

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Supplemental funds were obtained from the MONTANA DEPARTMENT OF STATE LANDS  
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AND GEOLOGY to undertake studies related to Montana's ground-water resources.

**MONTANA COLLEGE OF MINERAL SCIENCE AND TECHNOLOGY**  
Butte, Montana





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## ABSTRACT

The regional water-quality inventory of the Montana Plains suggests that significant water-quality deterioration has occurred in the glaciated portion of Montana where dryland farming has been practiced for many years. Several non-glaciated areas where saline seep is spreading rapidly are Judith Basin, Fergus, and Stillwater counties---also in areas of dryland farming.

The regional survey of wells, springs, streams, and reservoirs was conducted over a 42-county area encompassing roughly 118,000 square miles. More than 2,800 sites were evaluated in the field and 452 water samples were collected, of which 247 were analysed for trace elements. Specific conductance of the water ranged from 1,000 and 10,000 micromhos per centimeter at 64 percent of the sites. Conductivities were considerably higher in wells penetrating Cretaceous marine aquifers than in the non-marine late Cretaceous and Tertiary aquifers. Significant concentrations of trace elements, particularly selenium and boron, were found in many of the ground-water samples. Of the 160 samples analysed for selenium, more than 30 percent had concentrations greater than 10 micrograms per liter; some had values as high as 1,800 micrograms per liter.

The aerial reconnaissance survey indicated that the previous estimate of 200,000 acres of saline seep in Montana is somewhat low. The survey showed that there were considerably more affected acres in northern and central Montana than formerly thought, and, conversely, that southern and eastern Montana contained fewer seep acres.

A survey of 100 algal specimens collected from selected stream and reservoirs revealed that 25 percent of the water samples contained potentially toxic blue-green algae that could be responsible for some of the reported livestock kills.





## INTRODUCTION

The widespread occurrence and rapid growth of saline seep on or adjacent to cultivated drylands has become one of the most serious conservation problems in the Great Plains Region (7). Dryland salinity, hardly recognized 30 years ago, has now taken roughly two million acres out of production in the plains region--Montana, North and South Dakota, Alberta, Saskatchewan, and Manitoba (13).

Since 1969, the Montana Bureau of Mines and Geology in cooperation with numerous local, state, and federal organizations has been investigating the saline-seep problem. The Bureau has emphasized and examined the hydrological, geological, and water quality aspects of the problem (1, 9). In 1974, available analyses of water collected near Fort Benton and Sidney, Montana; Mott, North Dakota; and Lethbridge, Alberta, strongly suggested that in addition to losing thousands of acres of valuable farmland to saline seeps, mineralized water was rapidly contaminating nearby reservoirs, streams, and shallow aquifers. In some cases, the water was more saline than sea water (approximately 35,000 parts per million total dissolved solids) and was unfit for domestic, livestock, and irrigation use. Reported livestock and wildlife kills in certain areas were possibly related to salinity problems.

The portion of Montana affected by saline seep is characterized by relatively thin aquifers of alluvial or glacial origin underlain by thick, virtually impervious shale formations. These shallow aquifers provide water for towns, domestic use, livestock, and are the source of numerous springs, streams, and ponds. Because ground water represents a valuable resource in this part of Montana and economic alternatives to this water supply generally do not exist, the need for a regional assessment of the saline-seep problem and related water-quality investigation became apparent. As a result, the Montana Bureau of Mines and Geology, in cooperation with the Water Quality Bureau, requested funds from the Old West Regional Commission to conduct the investigation.

## METHOD OF STUDY

Because saline-seep affects domestic water supplies and because additional field personnel and analytical laboratory were available, a substantial portion of the program was subcontracted to the Water Quality Bureau, Montana Department

of Health and Environmental Sciences, Helena. The 42-county study area encompassing about 118,000 square miles (75 million acres) was divided into two general work areas with the Montana Bureau of Mines and Geology investigating northern and central Montana and the Water Quality Bureau covering the southern and eastern portion of the state.

Field information collected at each site included location, date evaluated, owner (if known), water source (stream, well, pond, etc.), water flow rate, brief site description, specific conductance, temperature, and remarks. In addition, the static water level, total depth, land surface altitude, and aquifer were also noted for wells and land surface altitude and aquifer were noted for springs. If a sample was to be sent to the lab, 4 containers of water were commonly collected--1 liter raw, 1 liter filtered ( $.45\mu$ ), 250 ml filtered-acidified ( $\text{HNO}_3$ ), and 250 ml filtered and preserved ( $\text{HgCl}$ ). Biological specimens were collected in accordance with instructions outlined by Loren Bahls. Areas with extensive saline-seep development (primarily cultivated areas) were given maximum sampling effort, consequently, very few sites were evaluated in the mountains or foothills located within the study area.

The samples were analyzed by Bureau of Mines and Geology, Butte, and Water Quality Bureau, Helena, utilizing procedures adopted by the Environmental Protection Agency and the U.S. Geological Survey. Most of the samples were analyzed for major constituents (calcium, magnesium, sodium, potassium, iron, manganese, silica, carbonate, bicarbonate, chloride, sulfate, and fluoride); nutrients (nitrate, phosphate); and selected trace elements (strontium, lithium, lead, copper, zinc, nickel, and aluminum). Many of the ground-water samples were also analyzed for arsenic, boron, mercury, antimony, beryllium, cadmium, chromium, silver, selenium, and tin. Measurements for pH and lab specific conductance and calculations for dissolved solids, total hardness, alkalinity, and sodium absorption ratio were made for each sample. All chemical and pertinent field data was computerized for entry into state and federal data systems.

## PROJECT OBJECTIVES

At the outset of the investigation two specific tasks or objectives were envisioned: (1) collecting and analyzing numerous surface- and ground-water samples; and (2) conducting a general water-quality survey utilizing historical data and comparing it to the new field data. As the program progressed during the first year several problems arose, and the following modifications and changes were implemented:

a) The large historical ground-water database (roughly 3,000 analyses on file at the State Board of Health) collected and analyzed from 1920 to 1970 was virtually unusable because the sample-site locations were not required or requested during this period. This reduced the usable historical data file to less than 600 analyses, few of which were located in seep-affected areas. As a result, emphasis was shifted to implement an extensive, region-wide specific conductance inventory to establish current baseline salinity levels. In all, over 2,800 wells, streams, springs, and reservoirs, and ponds, were evaluated in the field (Table 1); substantially increasing travel and personnel costs. These costs were offset by supplemental funds from the Department of State Lands saline-seep program, and by reducing the number of complete chemical analyses (Task 1).

b) Because of the absence of an extensive historical database, emphasis was placed on trying to establish and document water quality trends on existing saline-seep research sites (Fig. 2) where relatively rapid changes in water quality could be anticipated and evaluated. Specific conductance as well as water-level measurements were taken periodically (3 to 8 times per year) from each test hole and additional water quality samples were collected from selected research wells. Supplemental funds for analyses and site monitoring were obtained from the Bureau of Mines and Geology and Department of State Lands.

c) To reduce travel time of field crews and to accurately delineate significant seep-affected areas, an aerial reconnaissance survey was conducted. Seep areas were outlined on photo-index sheets (when available) and on county highway maps; they were later transferred to base maps. The aerial reconnaissance allowed field crews to concentrate on critical areas and provided the first uniformly documented distribution of saline areas in Montana.

d) Review of the chemical data obtained from selected ground-water samples collected during the first year revealed the presence of several trace elements--notably selenium, boron, tin, and aluminum--in concentrations greatly exceeding recommended limits. As a result, the suite of trace metals was expanded, increasing analytical costs significantly. Additional funds were obtained from the Bureau of Mines and Geology and Department of State Lands to offset the increased analytical costs.

e) Preliminary evaluation of several ponds indicated that in addition to the high concentrations and array of dissolved constituents and nutrients that are known to be present, there may be blue-green algae that are lethal to livestock. To investigate the potential toxic species of algae, a small subcontract was given to Dr. Loren Bahls who examined and described the benthic algae at approximately 100 different sites in the project area.

With the implementation of these changes the overall project objectives were increased from two to five:

1. To compare saline-seep formation at selected research sites with varying agronomic, geologic, and climatic conditions.
2. To assess regional extent of saline areas from aerial reconnaissance.
3. To document algal species present in selected streams and reservoirs.
4. To collect and analyze numerous water samples (Task 1 - reduced somewhat).
5. To conduct a regional water-quality (specific conductance) survey (Task 2 - greatly expanded).

#### COMPARISON OF SALINE-SEEP FORMATION IN GREAT PLAINS REGION

Because several papers that discuss the cause, formation, and development of saline seep in the northern Great Plains have appeared elsewhere in the literature (1, 6, 8, 9, 10, 11, 12), only a brief summary of saline-seep formation will be included in this report.

Saline seeps--defined as recently developed saline soils in non-irrigated areas that are wet some or all of the time, often with white salt crusts and

where crops or grass production are reduced or eliminated--are caused by land-use changes that allow an increased amount of moisture to migrate beneath the root zone, thereby disrupting the natural plant-soil-moisture regime. The major land-use change throughout the Great Plains Region is the alternate crop-fallow (summer fallow) farming system. Other factors that help aggravate the occurrence and spread of saline seep are:

- (1) Soil, subsoil, and underlying geologic formations that contain a nearly inexhaustible supply of water-soluble salts.
- (2) A climate in which a large percentage of annual precipitation occurs during the spring (April, May, and early June) before crops can utilize stored moisture effectively and before evapotranspiration is significant.
- (3) Numerous poorly drained upland "potholes" (typical of glaciated terranes) that are routinely cultivated. Once the shallow clay pan at the base of the pothole has been disturbed, water readily enters the underlying substratum.
- (4) A virtually impermeable material (shale or clay) beneath the soil profile that effectively impedes the downward movement of water, thus forming a "perched" or near-surface body of water. Such a condition retards or prevents drainage.
- (5) Development of a local ground-water flow system that allows saline ground water to migrate from upland recharge areas toward nearby discharge (saline seep) areas.

The generalized process of saline-seep formation is shown in Figure 1. The process starts by movement of water beneath the root zone but above the shallow impermeable layers, thereby forming a local ground-water flow system. The flow system moves saline water downslope to the discharge area (seep), where it evaporates, depositing the salt on the surface.

The rocks underlying the northern and eastern parts of Montana are mostly shale, siltstone, and sandstone with some widespread deposits of glacial till. The shale and till contain relatively large amounts of soluble salts that can be readily dissolved and transported by soil moisture and ground water. The salts can remain in solution underground or can be precipitated by evaporation where the water approaches or reaches the land surface. As long as a natural

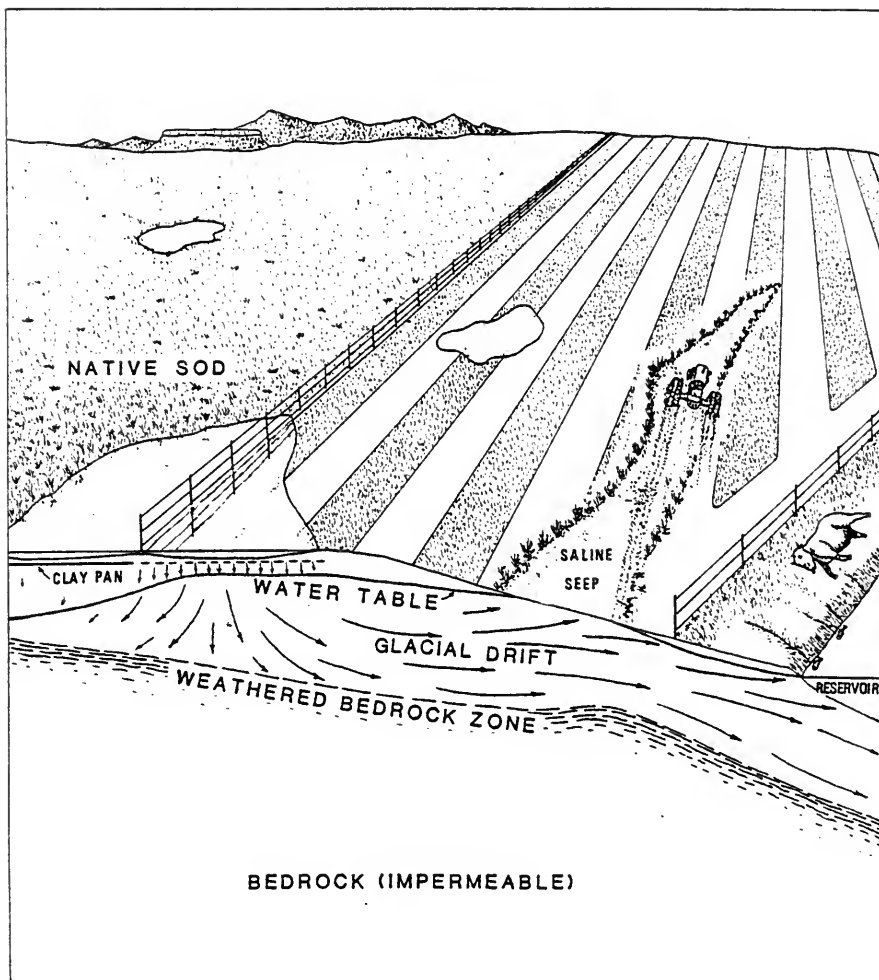


Figure 1. Generalized diagram illustrating the formation of saline seep

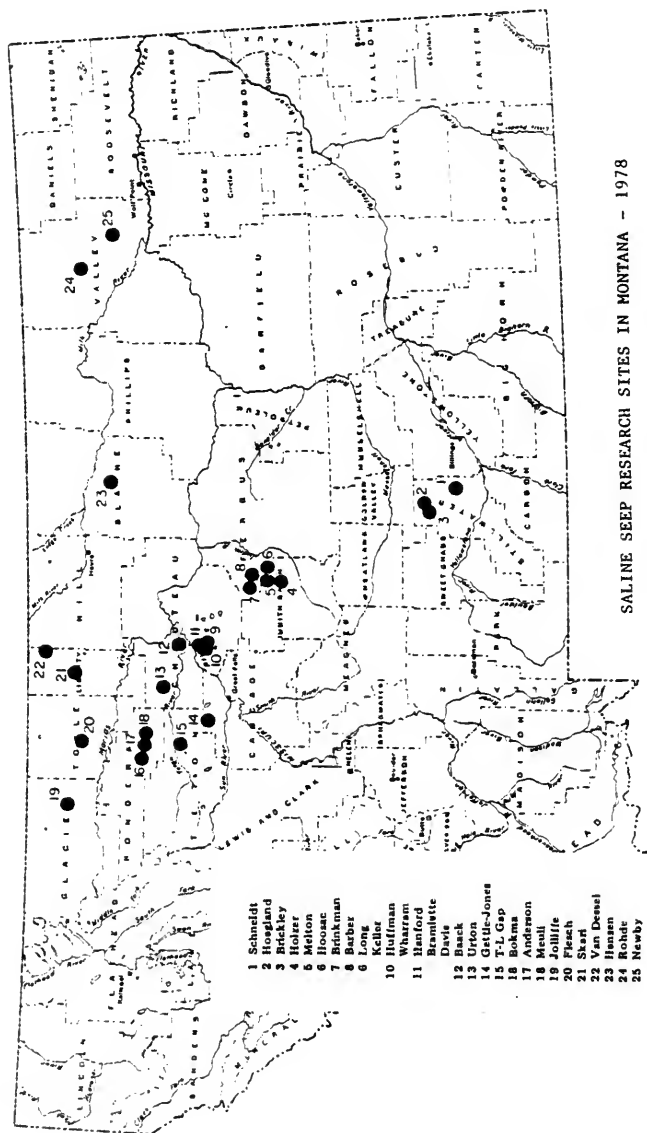
hydrologic system remains in equilibrium, salt deposition tends to remain low because of leaching during long periods of normal ground-water movement and because of the relatively small volume of water that moves through the salt-containing zones. Increased water movement from greater recharge upsets the equilibrium and causes additional salt to be dissolved and flushed.

In the Fort Union Formation, dense shale or underclay beneath coal seams impedes downward movement of water, thus forcing the water to move laterally along the coal seams until it comes to the surface in low areas. Alternate crop-fallow (summer fallow) farming system tends to build soil and subsoil moisture to the point where moisture is not completely utilized by crops, this increases the amount of water that reaches the land surface and evaporates.

During the period 1969 to 1975, the hydrogeology of 25 research sites in 12 counties have been investigated (Fig. 2). Over 550 test holes have been drilled and logged, water samples collected from selected holes, infiltration tests conducted, and repeated water-level and specific conductance measurements taken. Evaluation of this information together with data provided by other investigations in Montana, the Dakotas, and Canada (1, 4, 6, 8, 11, 12) provided a framework for a number of comparisons:

1. The alternate crop-fallow (summer fallow) farming system has been extensively utilized for at least 30 years throughout the northern Great Plains thus, providing the mechanism for regional saline-seep development.
2. The formation and development of saline seeps are the result of local ground-water flow systems. Distances from recharge areas to discharge (seep) areas are typically less than 2,500 feet.
3. The concentration of water-soluble salts contained in the soil profile and underlying substratum is quite variable but is usually high throughout the region. Some of the highest salt concentrations appear to be in northcentral (triangle area) Montana.
4. The chemical composition of saline-seep water is remarkably uniform. During the evolution of a typical saline seep, the ground-water quality changes from calcium bicarbonate type of water with relatively low Total Dissolved Solids (1,500 to 3,000 milligrams per liter) to a sodium-magnesium sulfate type of water with high Total Dissolved Solids (4,000 to 60,000

Figure 2



SALINE SEEP RESEARCH SITES IN MONTANA - 1978



milligrams per liter). In addition to the high Total Dissolved Solids (TDS) saline-seep water commonly contains much higher concentrations of nitrates and trace metals (1, 5, 6).

5. Because of the low chloride concentration in saline-seep water, seep water can be readily distinguished from deep subsurface brines.

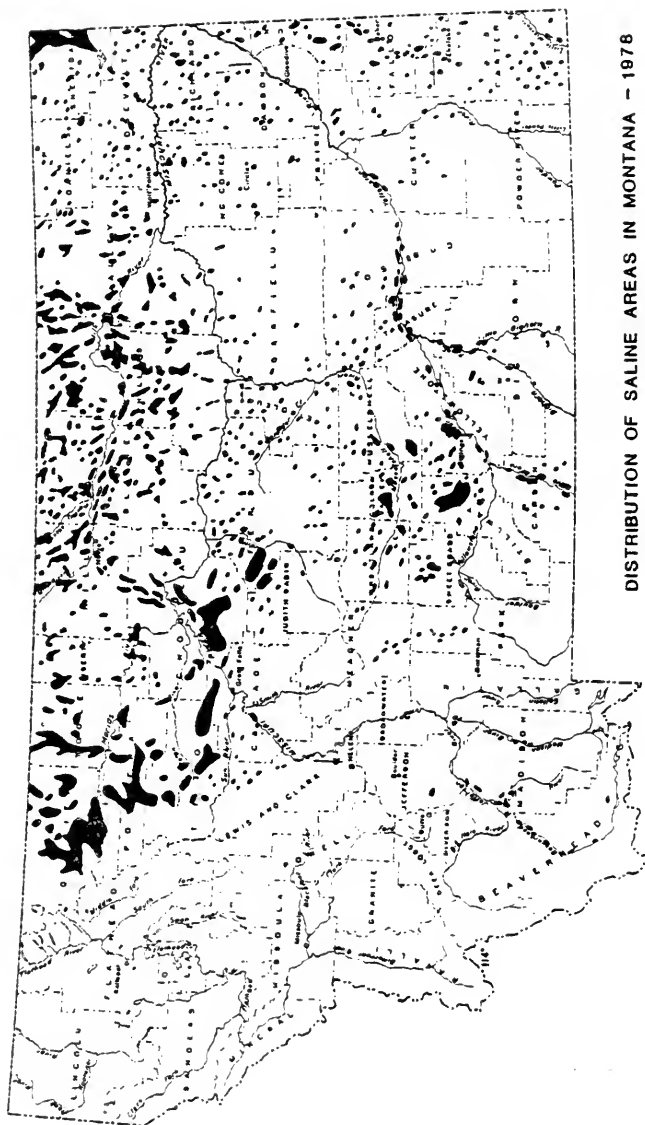
6. Intensive cropping, rotating in deep-rooted perennial crops, such as alfalfa, has been effective in stabilizing and, in some cases, reducing the size of the seep-affected area (2, 3, 4, 8). A five-year stand of alfalfa planted on one research site south of Fort Benton lowered the water table an average of 8 feet over the entire site and a 10 to 15 percent reduction in ground-water salinity has occurred.

Based on available data gathered from site-specific research test areas, it appears that specific conductance (approximation of Total Dissolved Solids) coupled with scattered chemical analyses provides useful and effective tools to assess the effect of saline seep on shallow ground-water resources and to establish regional water-quality trends.

#### REGIONAL EXTENT OF SALINE-SEEP DEVELOPMENT IN MONTANA

In the late 40's and early 50's a few scattered saline seeps were noted in Montana and western Canada. Since then, areas of saline seep have increased rapidly. Recent surveys (13) indicate that saline seeps have taken roughly 200,000 acres of Montana's dryland from agricultural production and that an area of roughly 2 million acres is now out of production in the Great Plains Region (Montana, North and South Dakota, Alberta, Saskatchewan, and Manitoba). The general distribution of areas in Montana that are seriously affected by salinity is shown on Fig. 2; the map is based on an aerial and field reconnaissance survey completed in 1977. Careful evaluation of the map and previous estimates suggest that the 200,000 acre figure may be somewhat low. Seep-affected areas in northern and central Montana appear to be considerably greater than previously estimated and conversely, in southern and eastern Montana the seep-affected areas appeared to be less than previous estimates.

Figure 3



DISTRIBUTION OF SALINE AREAS IN MONTANA - 1978

MONTANA BUREAU OF MINES AND GEOLOGY

An example illustrating saline-seep development over a 30-year period (1941-1971) in a 4-square mile area near Fort Benton, Montana, is shown in Fig. 4. On a region-wide basis, the acreage of saline seep appears to be expanding at an average rate exceeding 10 percent per year. The rate varies from year to year depending upon climate, but the general trend is toward significant increase. Expansion of seep areas by 20 to 200 percent in wet years is not uncommon, whereas expansion of only a few percent may occur in dry years.

Research indicates that fallow areas can undergo a water-table rise of 1 to 15 feet during years of average or above-average spring precipitation. The water levels gradually decline during the rest of the year but normally do not reach the low of the previous year. As a result, excess water accumulates through the years, causing expansion of the saline seeps during each succeeding wet cycle. Currently, seep development is especially rapid in areas where glacial till is less than 50 feet thick. Excess water is probably building up also in extensive areas underlain by greater thicknesses of till, but as yet the buildup is not evident at the surface.

Geological conditions favoring saline-seep development extend over vast areas of Montana, the Dakotas, and the three prairie provinces of Canada. These plains are the major grain-growing regions of North America, and the cropping system is dominantly an alternate crop-fallow rotation system. As long as all factors contributing to salinization continue, the situation can only worsen.

#### ALGAL SURVEY OF SELECTED STREAMS AND RESERVOIRS

As previously mentioned, 100 biological specimens were collected from scattered streams and ponds in eastern Montana and the results of this algal survey are discussed in detail in the last section of this report. Significant findings specifically related to the saline-seep problems are:

1. Potentially toxic blue-green algae were present in 25 percent of the samples analyzed and were found in water with Total Dissolved Solids varying from 368 to 23,819 milligrams per liter.

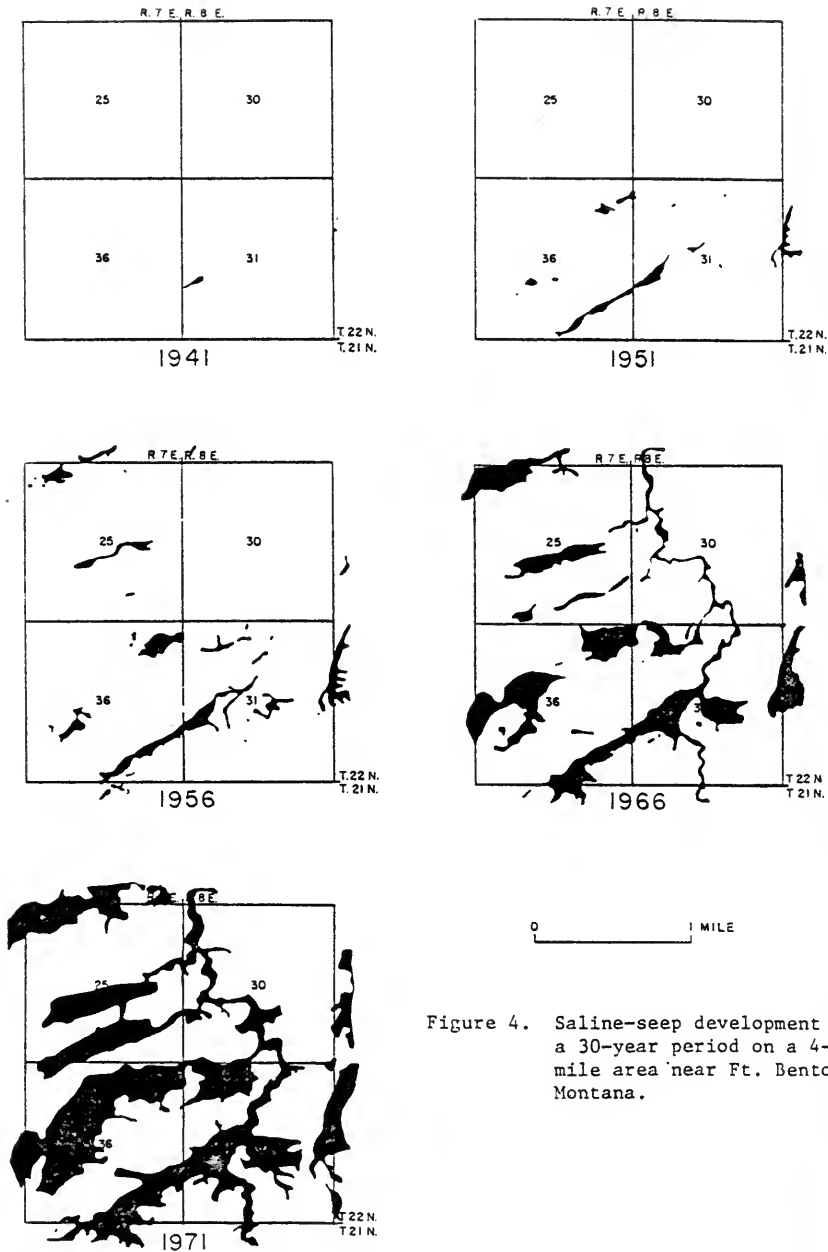


Figure 4. Saline-seep development over a 30-year period on a 4-square mile area near Ft. Benton, Montana.

2. Diatom diversity was significant and was related inversely to specific conductance.

#### WATER QUALITY AND SPECIFIC CONDUCTANCE SURVEY OF THE MONTANA PLAINS

Data collected to fulfill specific Tasks 1 and 2 are presented in the following section. For uniformity of presentation and to better show the distribution of sample sites, the data was not plotted on county base maps but on 1° x 2° Army Map service maps with a scale of ¼ inch equals one mile.

Eighteen 1° x 2° maps, each covering about 6,900 square miles, were needed to encompass the Montana plains. The 1° x 2° maps are arranged in this section in alphabetical order instead of geographical order. The following 1° x 2° maps will be found in this section: Billings, Bozeman, Choteau, Cut Bank, Ekalaka, Forsyth, Glasgow, Glendive, Great Falls, Hardin, Havre, Jordan, Lewistown, Miles City, Roundup, Shelby, White Sulphur Springs, and Wolf Point. Each 1° x 2° map is subdivided into eight 30 minute by 30 minute page-sized sheets. The arrangement of the sheets is shown on the Location Base Map sheet that precedes each 1° x 2° map section.

Each site evaluated was carefully located using the site location system (Township, Range, Section, and tract) described on pages 21 and 22. Hopefully many of these sites can be re-evaluated in the future to document changes and to quantify water quality trends.

The several types of symbols used on the specific conductance survey maps refers to the sample source (spring, well, pond, etc.). The legend for these symbols is given on page 23. Two numbers generally accompany each symbol. The number in parenthesis is the map reference number. This number is repeated in the Specific Conductivity Inventory section where additional information about the site may be found. The map reference number also will be found in the Chemical Analyses of Selected Waters and Trace Elements Analyses sections if a water sample from that site was chemically analysed. The other number generally included with each symbol is the specific conductance (corrected to 25°C) of water from that site.

Specific conductance (SC) is a measurement of the water's capacity to conduct an electric current. Because it varies directly with both temperature and the overall salinity of the water, all values are converted to 25 degrees Celsius making salinity the only variable. When the SC is measured in micromhos per centimeter, it roughly equals the Total Dissolved Solids (TDS) content in milligrams per liter (mg/l). The general relationships between SC and TDS is illustrated in Fig. 5. Note that when TDS is less than 8,000 mg/l the SC is about .8 to .9 times TDS, they are about equal when TDS is between 8,000 and 12,000 mg/l, and when the TDS is greater than 12,000 mg/l the SC is about 1.1 to 3.0 times TDS.

Part of the project to investigate regional aspects of water quality necessitated identification of water source by aquifer. This was to help determine if water from some aquifers yielded water more suitable for human and livestock consumption and also to see if water quality changed regionally within that aquifer. The aquifer code is thus included with many sample sites. The explanation for the aquifer code will be found on pages 23 and 24.

A summary of the regional saline-seep assessment by AMS 1° x 2° sheets is tabulated in Table 1. During the project 2,876 sites were evaluated in the field, 452 water samples were collected with 247 of these analysed for trace elements. Of the 2,800 plus sites, 14 percent had SC values less than 500; 16 percent between 500 and 1,000, 64 percent between 1,000 and 10,000; and 6 percent over 10,000 micromhos per centimeter. Because of the above-average precipitation during the 2-year period of the project, the reported SC values obtained from all the surface-water sites (about 50%) were undoubtedly low. Conductivity and trace-metal concentrations were considerably higher in wells penetrating the glacial and Cretaceous marine aquifers (northern and central Montana) than in the non-marine late Cretaceous and Tertiary aquifers. Chemical composition of ground water collected in glaciated portions of Montana were predominantly the sodium-magnesium sulfate type--similar to water collected from research test holes.

Significant concentrations of trace elements particularly selenium and boron, were found in many of the ground-water samples. Of the 160 samples

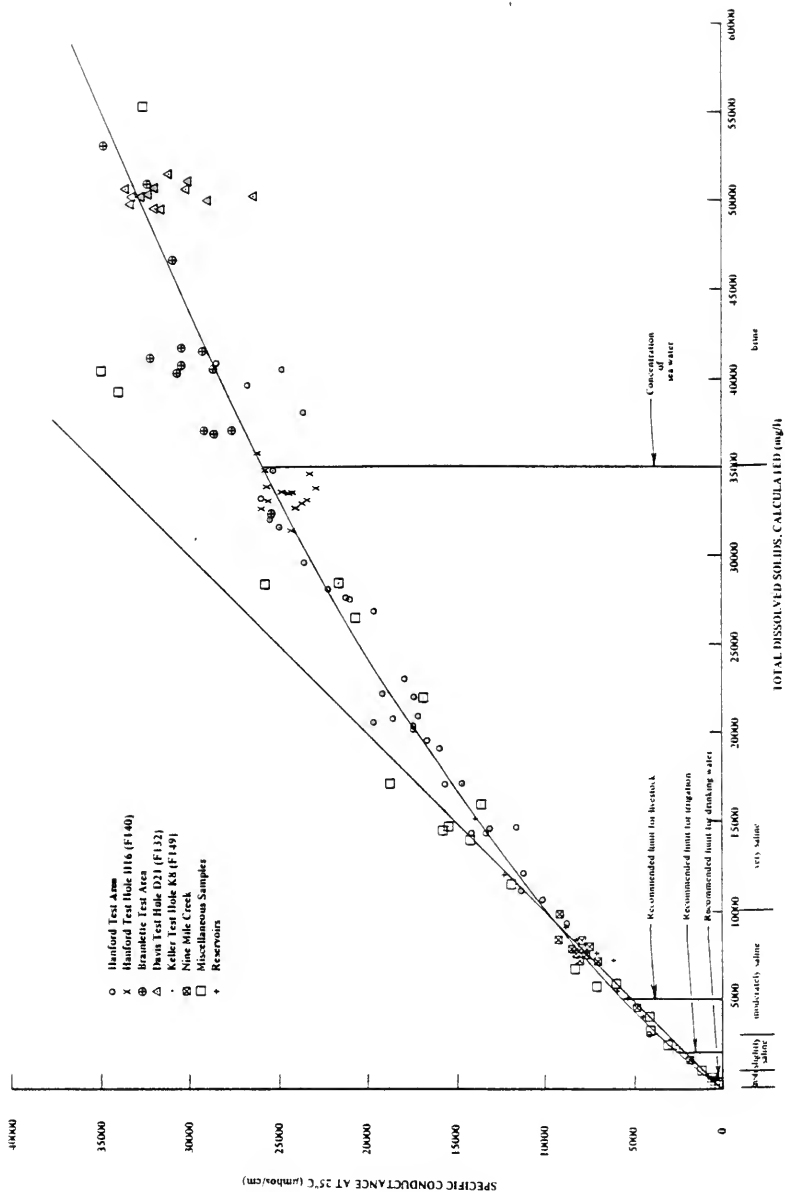


Figure 5.—Comparison between total dissolved solids and specific conductance of water samples from Nighwood Bench area.

Table 1

| SUMMARY OF SALINE SEEP ASSESSMENT RESULTS |                           |                             |                                  |                          |                               |                                  |                                    |                                 |                         |  |
|---|---------------------------|-----------------------------|----------------------------------|--------------------------|-------------------------------|----------------------------------|------------------------------------|---------------------------------|-------------------------|--|
|   | NUMBER OF SITES EVALUATED | NUMBER OF CHEMICAL ANALYSES | NUMBER OF ANALYSES COLL. 7/5/78* | NUMBER OF TRACE ANALYSES | NUMBER OF SITES WITH SC < 500 | NUMBER OF SITES WITH SC 500-1000 | NUMBER OF SITES WITH SC 1000-10000 | NUMBER OF SITES WITH SC > 10000 | NUMBER OF ALGAL SAMPLES |  |
| AMS 10"x 20"sheet                         |                           |                             |                                  |                          |                               |                                  |                                    |                                 |                         |  |
| BILLINGS                                  | 149                       | 73                          | 54                               | 24                       | 9                             | 16                               | 81                                 | 28                              | 15                      |  |
| BOZEMAN                                   | 18                        | 5                           | 5                                | 0                        | 11                            | 5                                | 2                                  | 0                               | 0                       |  |
| CHOTEAU                                   | 66                        | 11                          | 11                               | 5                        | 22                            | 21                               | 22                                 | 1                               | 2                       |  |
| CUT BANK                                  | 180                       | 103                         | 28                               | 20                       | 16                            | 17                               | 78                                 | 1                               | 0                       |  |
| EKALAKA                                   | 26                        | 14                          | 11                               | 0                        | 0                             | 0                                | 26                                 | 0                               | 0                       |  |
| FORSYTH                                   | 72                        | 44                          | 13                               | 6                        | 5                             | 6                                | 45                                 | 11                              | 0                       |  |
| GLASGOW                                   | 194                       | 29                          | 21                               | 21                       | 17                            | 44                               | 120                                | 2                               | 7                       |  |
| GLENDIVE                                  | 132                       | 54                          | 37                               | 20                       | 6                             | 8                                | 95                                 | 14                              | 6                       |  |
| GREAT FALLS                               | 261                       | 37                          | 35                               | 35                       | 46                            | 65                               | 130                                | 14                              | 7                       |  |
| HARDIN                                    | 231                       | 220                         | 32                               | 22                       | 2                             | 19                               | 192                                | 3                               | 1                       |  |
| HAVRE                                     | 305                       | 42                          | 18                               | 17                       | 76                            | 49                               | 166                                | 2                               | 8                       |  |
| JORDAN                                    | 73                        | 11                          | 5                                | 2                        | 8                             | 4                                | 52                                 | 4                               | 5                       |  |
| LEWISTOWN                                 | 195                       | 46                          | 18                               | 18                       | 25                            | 33                               | 102                                | 6                               | 21                      |  |
| MILES CITY                                | 90                        | 31                          | 13                               | 1                        | 4                             | 5                                | 61                                 | 15                              | 0                       |  |
| ROUNDUP                                   | 207                       | 64                          | 27                               | 12                       | 24                            | 48                               | 106                                | 7                               | 9                       |  |
| SHELBY                                    | 367                       | 60                          | 57                               | 42                       | 65                            | 31                               | 242                                | 15                              | 3                       |  |
| WHITE SUL. SPRINGS                        | 51                        | 11                          | 7                                | 0                        | 21                            | 16                               | 12                                 | 1                               | 0                       |  |
| WOLF POINT                                | 259                       | 168                         | 60                               | 2                        | 19                            | 32                               | 155                                | 40                              | 16                      |  |
| TOTAL                                     | 2876                      | 1023                        | 452                              | 247                      | 376                           | 419                              | 1687                               | 164                             | 100                     |  |



analysed for selenium over 30 percent had concentrations greater than 10 micrograms per liter ( $\mu\text{g}/\text{l}$ ). Analyses of water collected from aquifers associated with the Colorado Shale, which is known to be seleniferous, showed that 59 percent of the water samples contained more than the 10 mg/l limit for potable water set by U.S. Public Health Service; some values were as high as 1,800  $\mu\text{g}/\text{l}$ . Many of these wells are being used for domestic or stock watering purposes.

### CONCLUSIONS

Because of the lack of a detailed historical database, it is difficult to quantify the effects of saline-seep development on the surface water and shallow ground-water resources of the area, however, presently available data suggest that significant water-quality deterioration has occurred in the glaciated portion of Montana where dryland farming has been a way-of-life for many years. Several other areas of concern are in Judith Basin, Fergus, and Stillwater counties where saline seep is spreading rapidly. Undoubtedly, many other areas have local problems, but our sampling base was not dense enough to delineate them.

Numerous discussions with county agents, district conservationist, and rural leaders typically support the above statements, and probably the most convincing statements came from the landowners. Some of the more frequent statements made by farmers are:

- a) "Our well or wells went bad and we have been hauling water for years".
- b) "Over the last 5 (to 20) years we have had to drill 2 (to 4) wells, each one deeper than the last to get good water".
- c) "Three (to 5) years ago our well turned bad during the spring, and each year we have to haul water for a longer period of time".
- d) "All the wells in the area have gone bad, that is why we hooked up to the rural water distribution system".
- e) "During the last 5 (to 15) years, springs have appeared in several coulees and now the banks are sliding into the draw".
- f) "The cows will drink from the reservoir only during the spring of the year".

g) "My reservoir used to be the best fishing in these parts, but the fish all died 1 (to 10) years ago".

h) "I don't have any freshwater left on my place, so I guess I'll sell all my cattle and plow-up the rest of my pasture".

i) "Over the last 2 (to 10) years I have had to pump out by basement each spring, and it seems to be getting worse".

j) "Last year my shelter-belt began to die".

All of these statements and many more imply that the local ground-water flow system is out of equilibrium, flushing the salts out of the profile, and is rapidly contaminating the water resources of the area.

#### RECOMMENDATIONS

1. Immediately intensify cropping practices over the entire northern plains region to hopefully get the problem stabilized.
2. Rotate deep-rooted legumes such as alfalfa into the cropping system, particularly on recharge areas.
3. Surface drainage of upland, freshwater potholes that are normally cultivated should be encouraged. Research on all drainage systems particularly subsurface drains, should be initiated to determine the long- and short-term benefits, if any.
4. Maintain an active and comprehensive monitoring and sampling network throughout the region to use for forecasting ground-water conditions in a given area; to quantify long- and short-term changes in water quality; and to evaluate the effectiveness of various cropping systems in controlling saline-seep formation (demonstration- and research-site programs).
5. Initiate research on the distribution, behavior, and potential for toxicity of selected trace elements in ground water of the northern Great Plains--immediate attention should be given to selenium.
6. Maintain and add water-quality information to data-systems to document and quantify future changes and trends. A follow-up regional inventory in 5 to 8 years utilizing many of the wells evaluated in the present study would be particularly valuable in achieving this objective.
7. Encourage and promote a coordinated research, education, and extension program to hopefully get control of the saline-seep problem in the shortest amount of time.

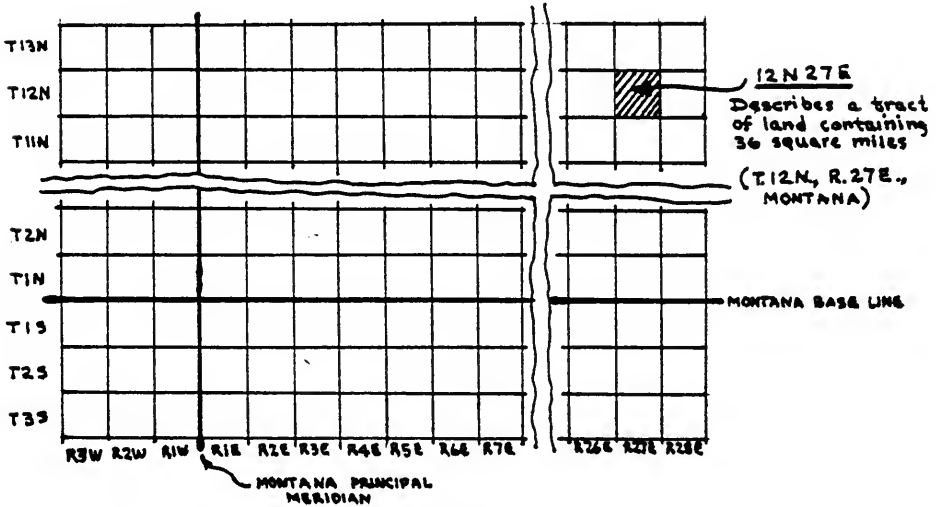
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# SITE LOCATION SYSTEM

The location of objects in Montana (such as wells, springs, ponds, etc.) is referenced to the legal subdivisions of public lands--that is--by Township, Range, Section, and Quarters of a section. Thus a site description of 12 N 27E designates a particular township, 6 miles on a side, that lies 12 townships north of the Montana Base Line and 27 townships east of the Montana Principal Meridian.



Each township is subdivided into 36 sections as follows:

Subdivision of T.12N, R.27E.

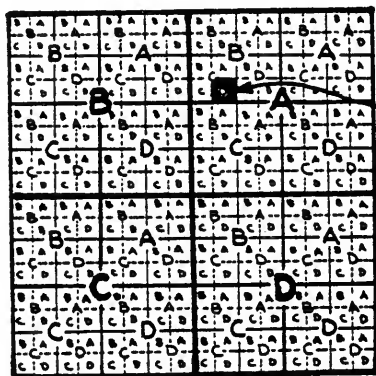
|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 6  | 5  | 4  | 3  | 2  | 1  |
| 7  | 8  | 9  | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

12 N 27 E 15  
Describes a tract of  
land 1 mile square  
(section 15, T.12N, R.27E.,  
MONTANA)

The subdivision of a particular section into quarters, however, departs from legal usage in that the letters A, B, C, and D are used for the NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , SW $\frac{1}{4}$ , and SE $\frac{1}{4}$  respectively. Additionally the quartering of a section in the Site Location System begins with the largest quarter (the 160-acre tract) then proceeds to the 40-acre tract, the 10-acre tract, and the 2.5-acre tract. If, for example, a well site is described as 12N 27E 15 ABCD, the location of that well is in the SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , NW $\frac{1}{4}$  of the NE $\frac{1}{4}$ , Section 15, Township 12N, Range 27E. In the sequence ABCD, the 1st letter (A) describes the NE $\frac{1}{4}$ , the 2nd letter (B) calls out the NW $\frac{1}{4}$  of the NE $\frac{1}{4}$ , the 3rd letter (C) calls out the SW $\frac{1}{4}$  of the NW $\frac{1}{4}$  of the NE $\frac{1}{4}$ , and the 4th letter (D) calls out the SE $\frac{1}{4}$  of the SW $\frac{1}{4}$  of the NW $\frac{1}{4}$  of the NE $\frac{1}{4}$ .

Each section is subdivided into quarters as follows:

Subdivision of Sec. 15, T.12 N., R.27 E.















12N 27E 15 ABCD

Describes a tract of land  
containing 2.5 acres  
(the SE $\frac{1}{4}$  SW $\frac{1}{4}$  NW $\frac{1}{4}$  NE $\frac{1}{4}$ ,  
Sec. 15, T. 12 N., R. 27 E.,  
MONTANA)

If more than one object is being described in a particular 2.5-acre tract, sequence numbers 1, 2, 3 . . . etc. are given to those objects to distinguish them. Thus 12N 27E 15 ABCD<sub>2</sub> refers to object 2 in the SE $\frac{1}{4}$  SW $\frac{1}{4}$  NW $\frac{1}{4}$  NE $\frac{1}{4}$  section 15, Township 12 North, Range 27 East, Montana.

# LEGEND FOR MAP SYMBOLS

|   |   |                      |
|---|---|----------------------|
|  |  | creek, river, stream |
|  |  | ditch, drain         |
|  |  | seep                 |
|  |  | lake, pond, marsh    |
|  |  | well                 |
|  |  | spring               |

Solid symbols indicate that a chemical analysis is available

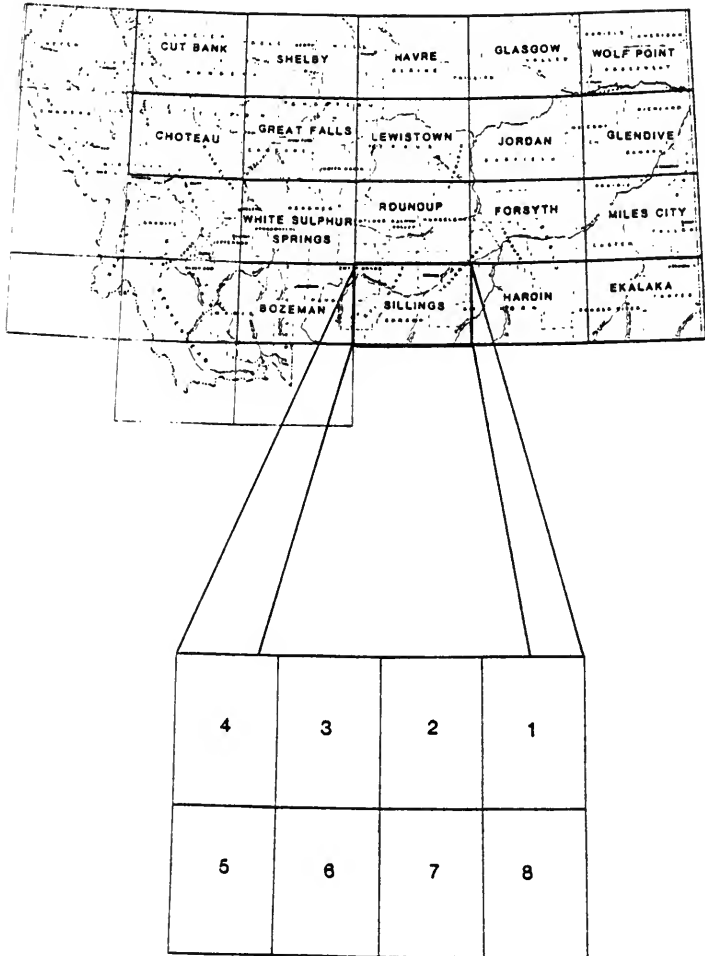
# LEGEND FOR AQUIFER CODE

| <u>CODE</u> | <u>AGE</u>  | <u>FORMATION</u>       |
|-------------|-------------|------------------------|
| 110ALVM     | Quaternary  | Alluvium               |
| 110CLVM     | Quaternary  | Colluvium              |
| 110TRRC     | Quaternary  | Terrace deposits       |
| 112DRFT     | Pleistocene | Glacial drift          |
| 112GCLO     | Pleistocene | Glacial outwash        |
| 112GLCC     | Pleistocene | Glacial lake deposits  |
| 112OTSH     | Pleistocene | Outwash                |
| 112TILL     | Pleistocene | Glacial till           |
| 112TRRC     | Pleistocene | Terrace deposits       |
| 121FLXV     | Pliocene    | Flaxville Formation    |
| 125FRUN     | Paleocene   | Fort Union Formation   |
| 125TGRV     | Paleocene   | Tongue River Member    |
| 125TLCK     | Paleocene   | Tullock Member         |
| 210CLRD     | See 211CLRD |                        |
| 211BRPW     | Cretaceous  | Bearpaw Shale          |
| 211CLGT     | Cretaceous  | Claggett Shale         |
| 211CLRD     | Cretaceous  | Colorado Group         |
| 211EGLE     | Cretaceous  | Eagle Sandstone        |
| 211FRNR     | Cretaceous  | Frontier Formation     |
| 211FXHL     | Cretaceous  | Fox Hills Formation    |
| 211HLCK     | Cretaceous  | Hell Creek Formation   |
| 211JDRV     | Cretaceous  | Judith River Formation |
| 211MRSN     | See 221MRSN |                        |

| <u>CODE</u> | <u>AGE</u>    | <u>FORMATION</u>           |
|-------------|---------------|----------------------------|
| 211MSBY     | Cretaceous    | Mosby Sandstone            |
| 211TMDC     | Cretaceous    | Two Medicine Formation     |
| 211TPCK     | Cretaceous    | Telegraph Creek Formation  |
| 211VLCC     | Cretaceous    | Volcanic rocks             |
| 211VRGL     | Cretaceous    | Virgille Sandstone         |
| 217DKOT     | Cretaceous    | Dakota Sandstone           |
| 217KOTN     | Cretaceous    | Kootenai Formation         |
| 217LKOT     | Cretaceous    | Lakota Sandstone           |
| 217MDDY     | Cretaceous    | Muddy Sandstone            |
| 217SCCK     | Cretaceous    | Second Cat Creek Sandstone |
| 221MRSN     | Jurassic      | Morrison Formation         |
| 221SWFT     | Jurassic      | Swift Formation            |
| 224PIPR     | Jurassic      | Piper Formation            |
| 230SPRF     | Triassic      | Spearfish Formation        |
| 317TSLP     | Permian       | Tensleep Sandstone         |
| 320AMSD     | Pennsylvanian | Amsden Formation           |
| 320TSLP     | See 317TSLP   |                            |
| 320TYLR     | Pennsylvanian | Tyler Formation            |
| 331CRLE     | Mississippian | Charles Formation          |
| 331HETH     | Mississippian | Heath Formation            |
| 331KBBY     | Mississippian | Kibbey Formation           |
| 331MDSN     | Mississippian | Madison Group              |
| 331MSNC     | Mississippian | Mission Canyon Limestone   |
| 337LDGP     | Mississippian | Lodgepole Limestone        |
| 337MSNC     | See 331MSNC   |                            |



# LOCATION BASE MAP

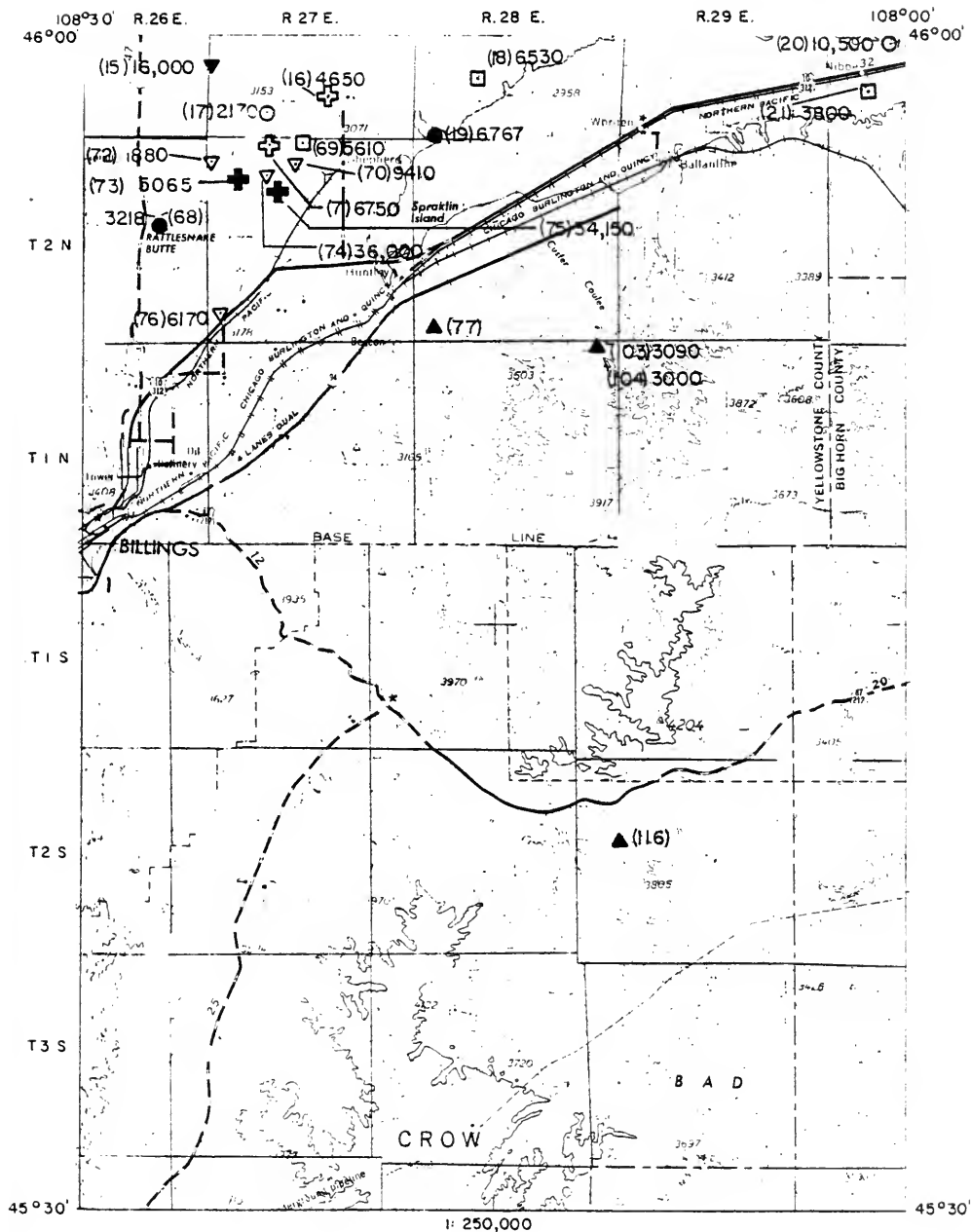


BILLINGS 1° x 2° SHEET



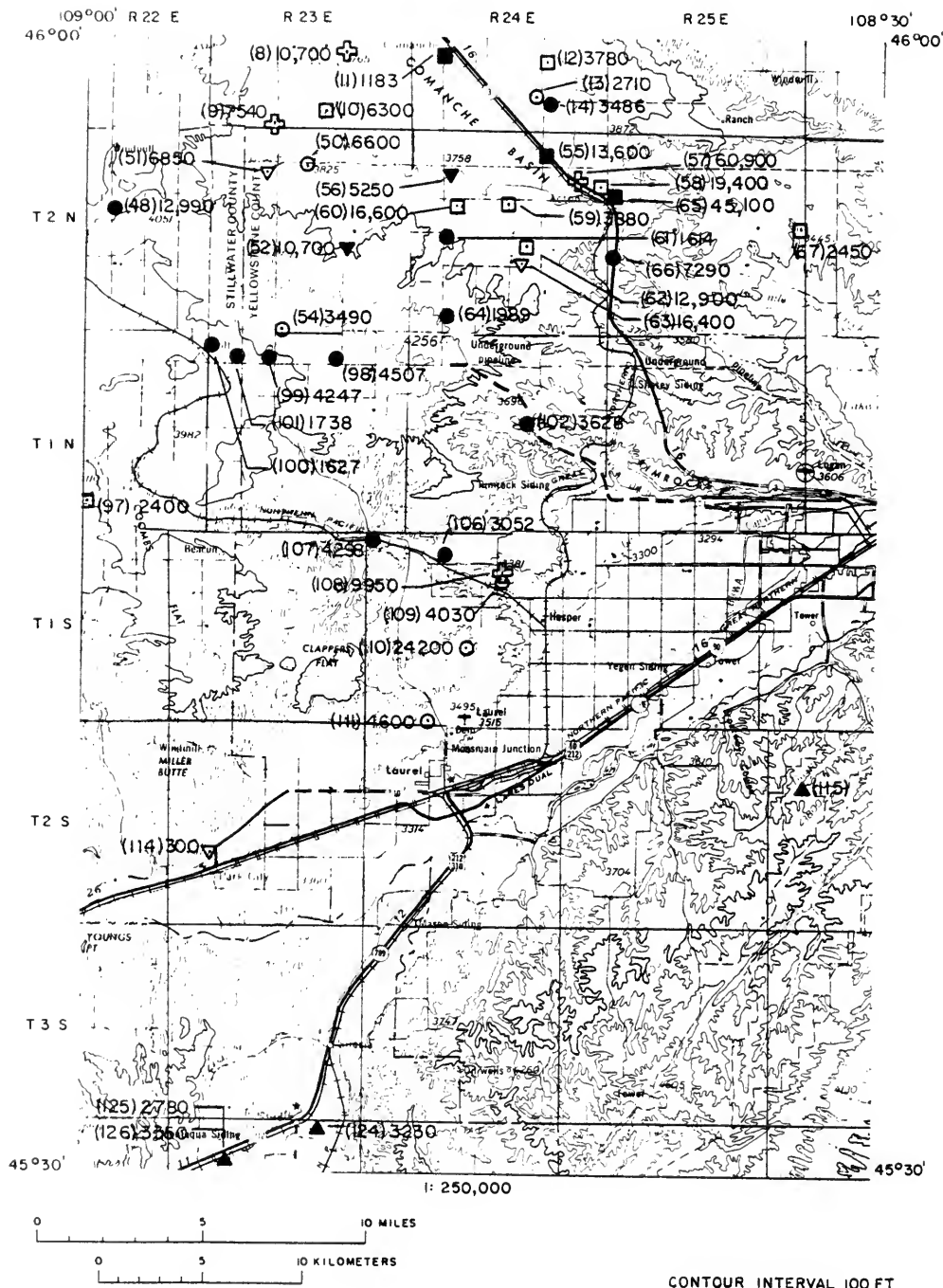
# SPECIFIC CONDUCTANCE SURVEY

BILLINGS I



# SPECIFIC CONDUCTANCE SURVEY

BILLINGS 2

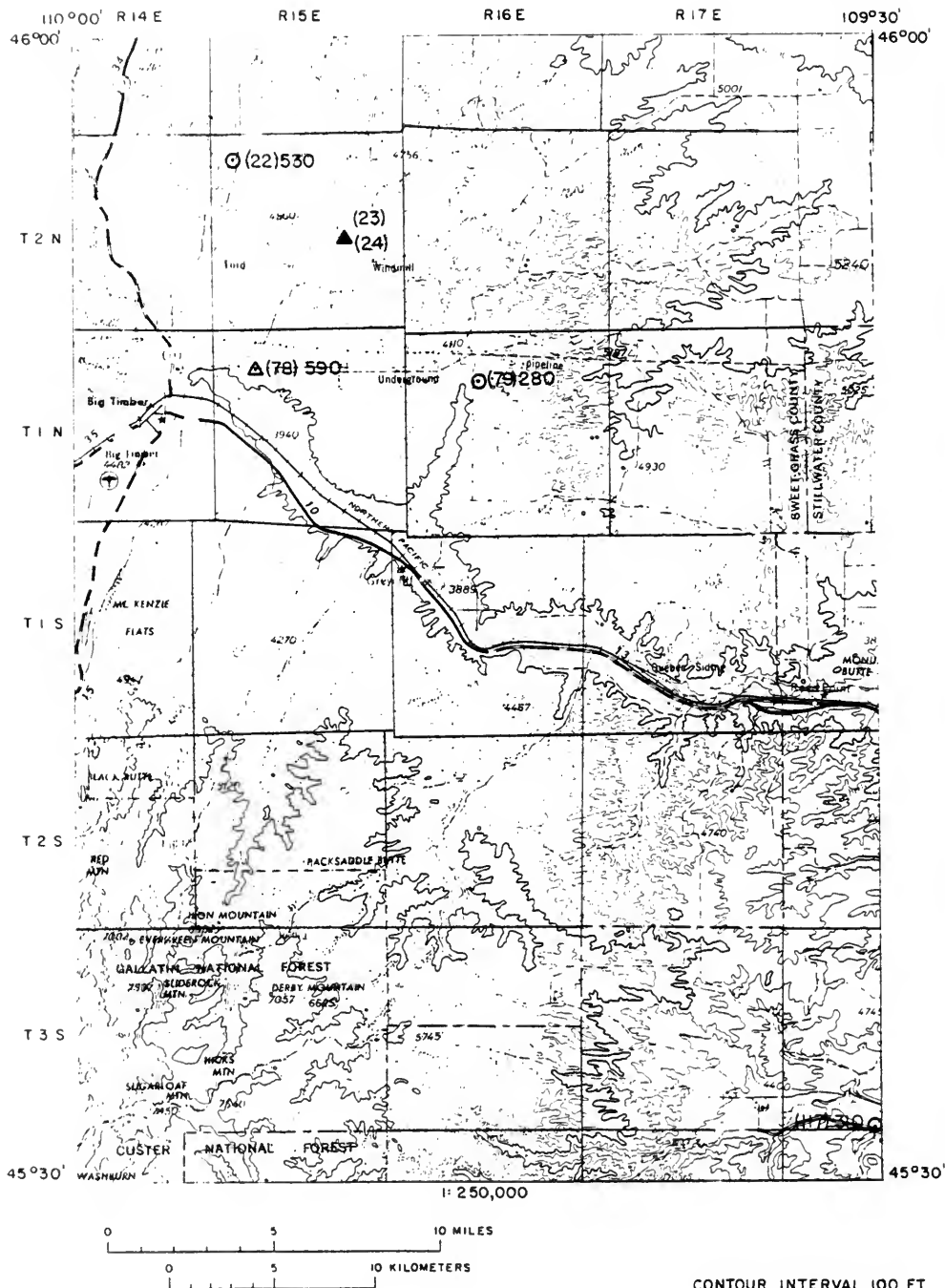


## BILLINGS 3

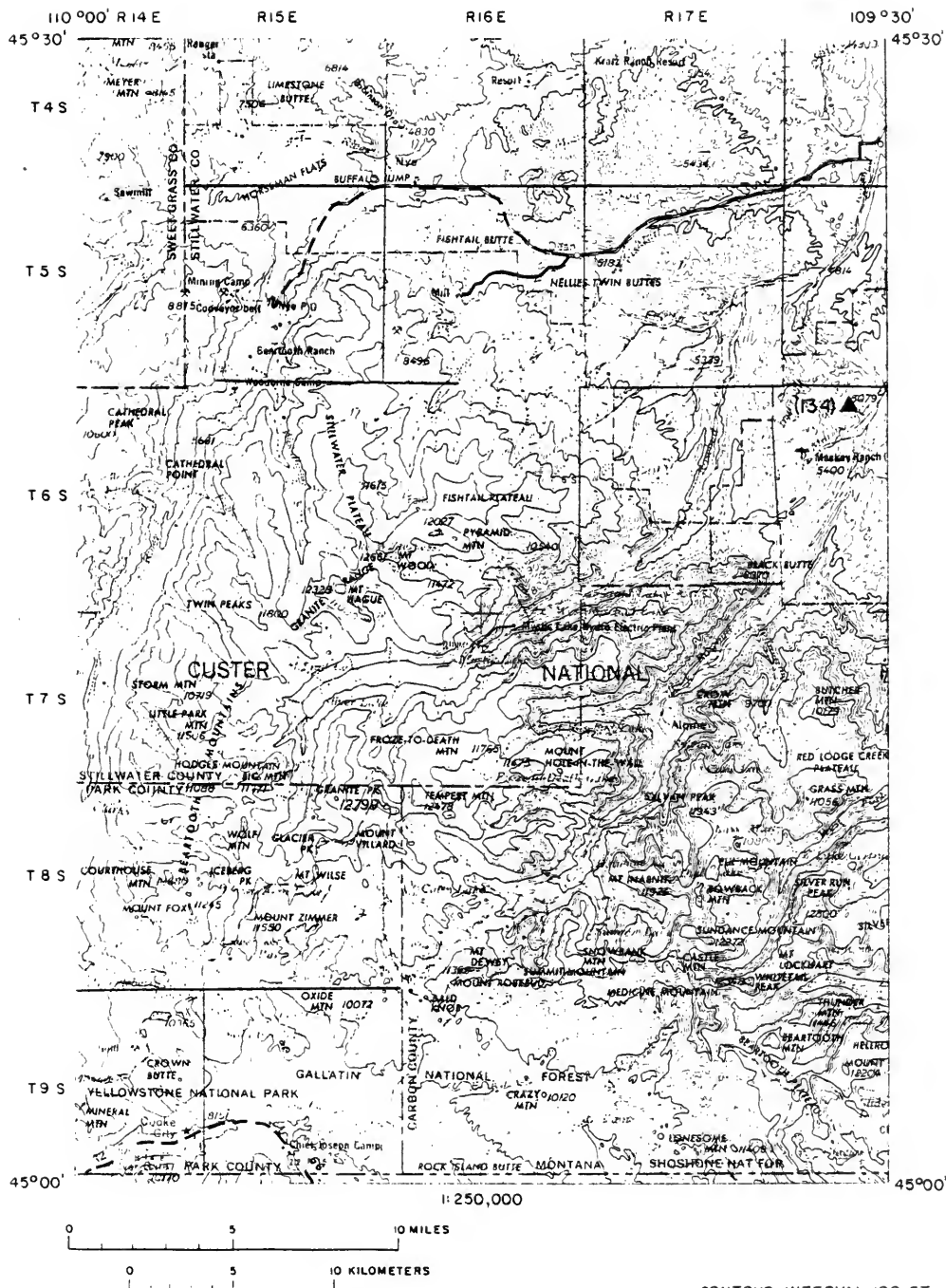


SPECIFIC CONDUCTANCE SURVEY

BILLINGS 4

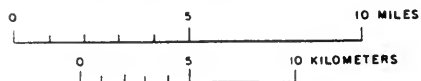
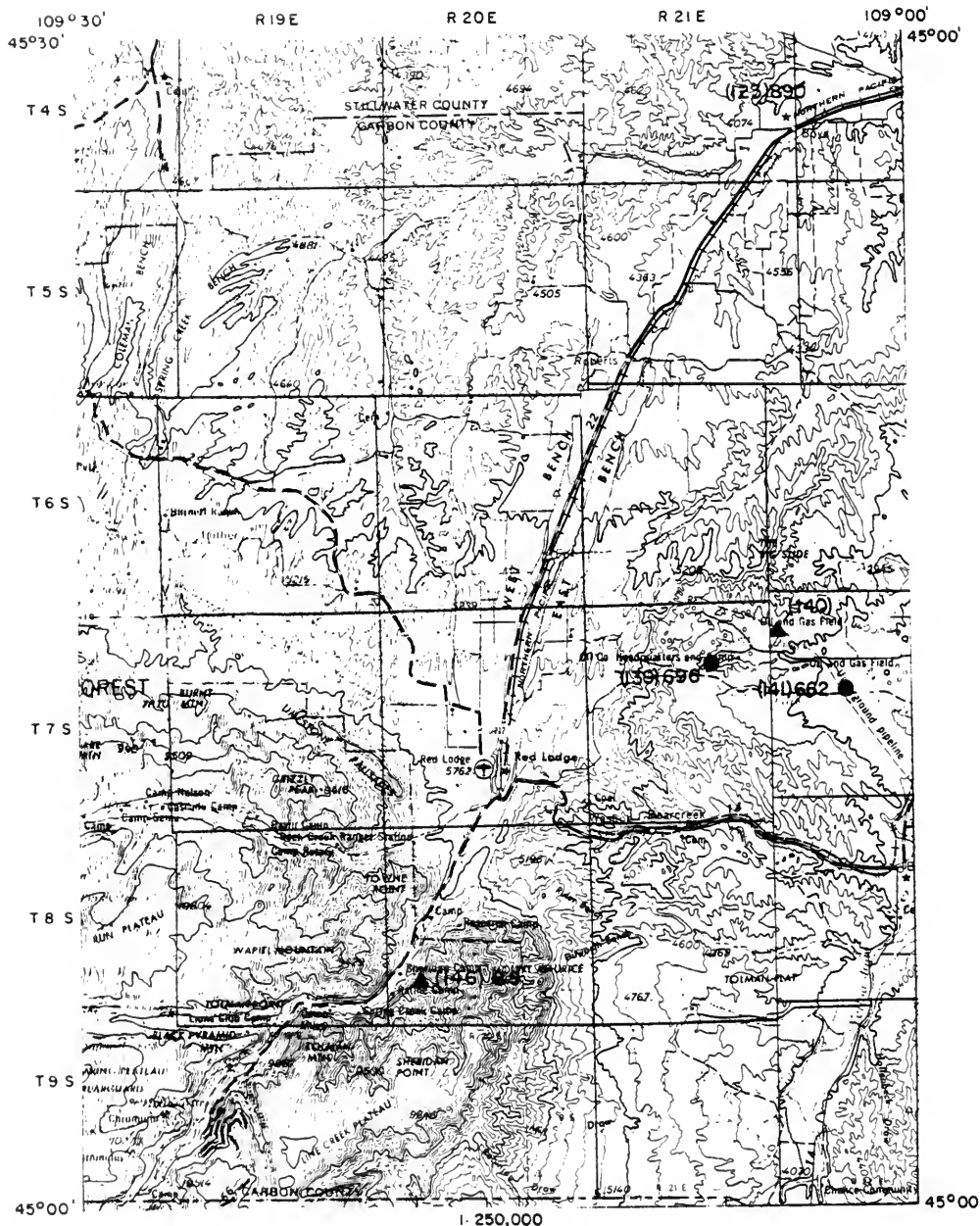


## BELLINGS 5



# SPECIFIC CONDUCTANCE SURVEY

BILLINGS 6

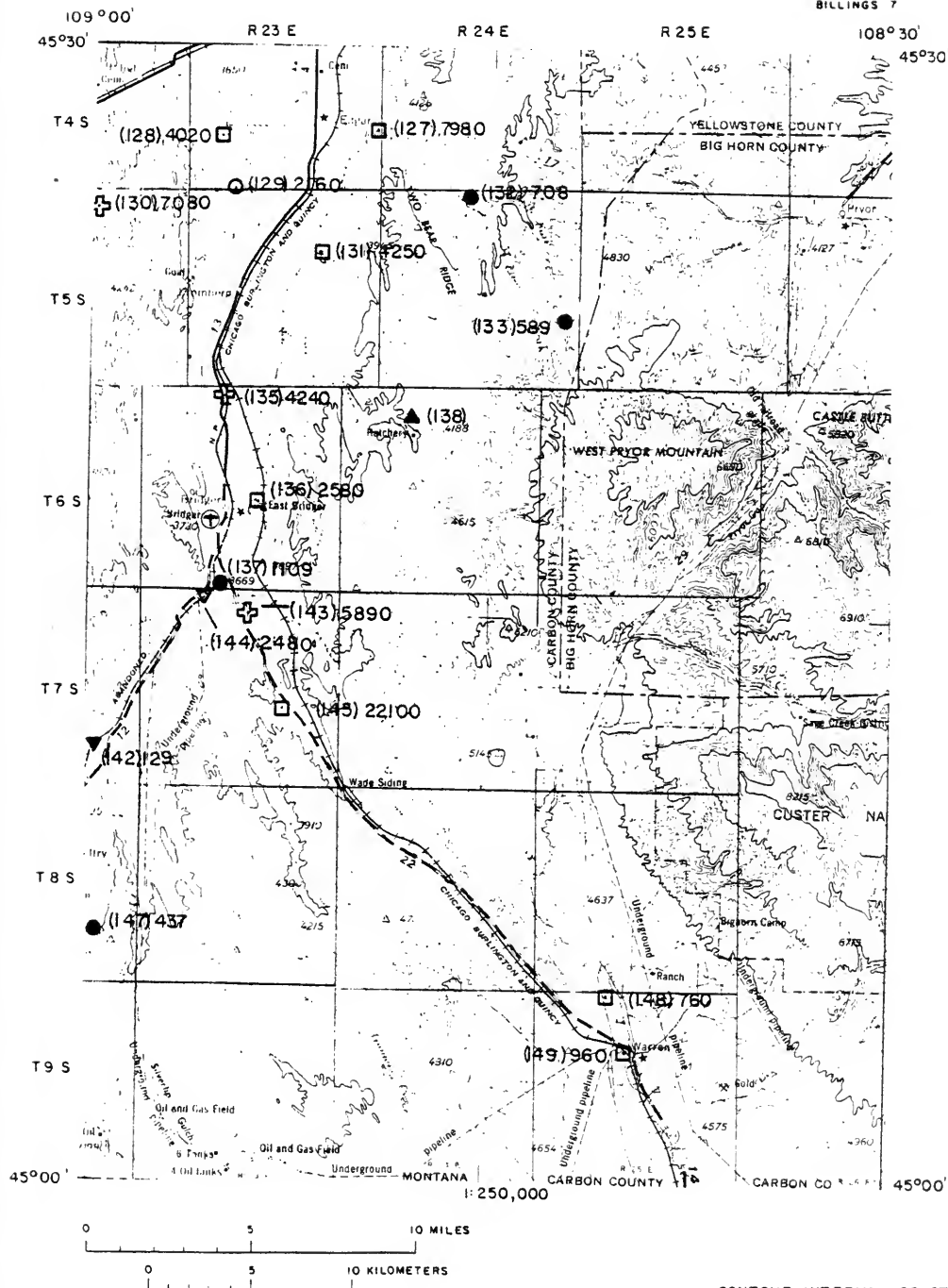


CONTOUR INTERVAL 100 FT



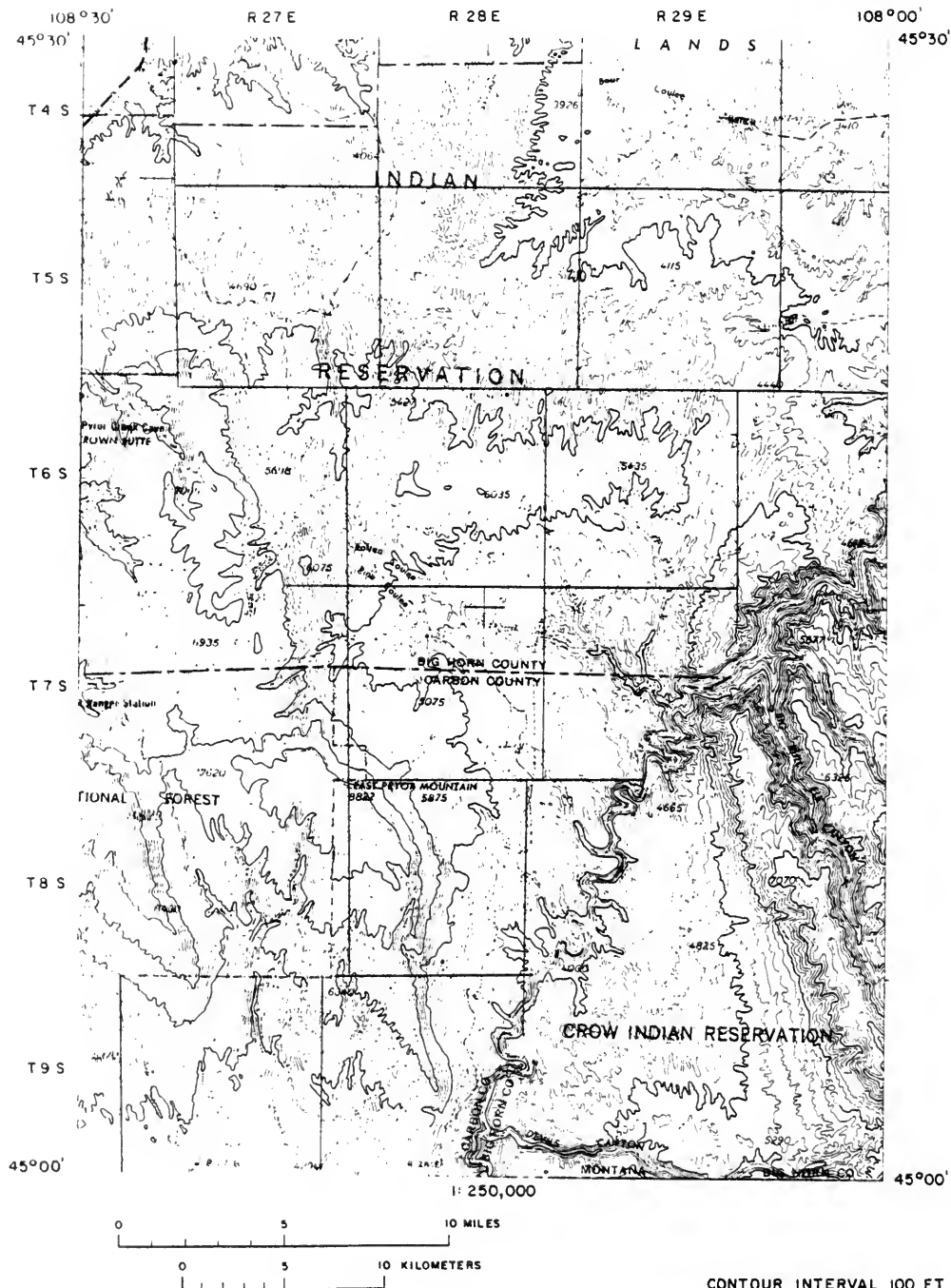
# SPECIFIC CONDUCTANCE SURVEY

BILLINGS 7



# SPECIFIC CONDUCTANCE SURVEY

BILLINGS 8



## BILLINGS 1 x 2 Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref | Field<br>no | County      | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                             | Specific<br>conductivity<br>at 26 °C | Field<br>temp.<br>°C | Lab<br>analyst | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|------------|-------------|-------------|---------------------------|---------------------------------|--|--|--------------------------------------|----------------------|----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 1          | WOB31       | Stillwater  | 03N 20E 26 CB A           | 08 17 76 Pond                   | no flow  | Located 2.2 miles E NE of Rapelle            | 930                                  |                      | no             |                   |                                   |                        |                 |              |
| 2          | WOB29       | Stillwater  | 03N 20E 33                | 08 17 76 Lake                   | 20 gpm (E)                                     | Dallman Lake, one mile E of Rapelle          | 12370                                | 21                   | yes            |                   |                                   |                        |                 |              |
| 3          | WOB86       | Stillwater  | 03N 20E 36 AA             | 04 21 76 Creek                  | no flow  | Dylan Creek at Four Mile Corner E of Rapelle | 12000                                | 17                   | yes            |                   |                                   |                        |                 |              |
| 4          | WOB5        | Stillwater  | 03N 20E 36 AB             | 04 21 76 Creek                  | no flow  | Cindi Creek E of Rapelle                     | 10000                                |                      | no             |                   |                                   |                        |                 |              |
| 5          | WOB46       | Stillwater  | 03N 21E 33 DBA            | 08 19 76 Lake                   | no flow  | N end of Halfbreed Lake                      | 6200                                 | 19                   | yes            |                   |                                   |                        |                 |              |
| 6          | WOB45       | Stillwater  | 03N 22E 20 DCD            | 09 19 76 Creek                  | no flow  | Lust Creek 6 miles N NE of Big Lake          | 12750                                | 19                   | yes            |                   |                                   |                        |                 |              |
| 7          | WOB47       | Yellowstone | 03N 23E 26 CB             | 10 13 76 Sump                   | no flow  | Saline sump marsh                            | 10700                                |                      | no             |                   |                                   |                        |                 |              |
| 8          | WOB58       | Yellowstone | 03N 23E 32 DD             | 10 13 76 Sump                   | no flow  | Saline sump marsh                            | 6300                                 |                      | no             |                   |                                   |                        |                 |              |
| 9          | WOB58       | Yellowstone | 03N 23E 32 DD             | 10 13 76 Sump                   | no flow  | Dreest dryland farm area                     | 6300                                 |                      | no             |                   |                                   |                        |                 |              |
| 10         | WOB30       | Yellowstone | 03N 23E 33                | 04 09 76 Pond                   | no flow  | Comanche Marsh                               | 1183                                 | 18.8                 | yes            |                   |                                   |                        |                 |              |
| 11         | WOB17       | Yellowstone | 03N 24E 20 CA             | 06 25 76 Pond                   | no flow  | Stock use                                    | 3780                                 |                      | no             |                   |                                   |                        |                 |              |
| 12         | WOB24       | Yellowstone | 03N 24E 23 CC             | 10 04 76 Creek                  | no flow  | Located 3 miles SE of Comanche               | 2710                                 |                      | no             |                   |                                   |                        |                 |              |
| 13         | WOB35       | Yellowstone | 03N 24E 27 DD             | 04 09 76 Creek                  | 50 gpm (E)                                     | Along road 1.9 miles N of Acton              | 3486                                 | 18                   | yes            |                   |                                   |                        |                 |              |
| 14         | WOB23       | Yellowstone | 03N 24E 35 BC             | 04 09 76 Creek                  | no flow  | Drainage ditch N of Billings                 | 16000                                | 17                   | yes            |                   |                                   |                        |                 |              |
| 15         | WOB20       | Yellowstone | 03N 27E 19 CC             | 04 08 76 Ditch                  | no flow  |  |                                      |                      |                |                   |                                   |                        |                 |              |
| 16         | WOB49       | Yellowstone | 03N 27E 27 DCC            | 10 12 76 Sump                   | no flow  | Large sump area 2 miles N of Shepherd        | 4650                                 |                      | no             |                   |                                   |                        |                 |              |
| 17         | WOB50       | Yellowstone | 03N 27E 32 AA             | 10 12 76 Creek                  | 1 cfs (E)                                      | Large sump area 2 miles N of Shepherd        | 7630                                 |                      | no             |                   |                                   |                        |                 |              |
| 18         | WOB48       | Yellowstone | 03N 28E 29 AA             | 10 12 76 Marsh                  | no flow  | Maple Creek intersection                     | 6530                                 |                      | no             |                   |                                   |                        |                 |              |
| 19         | WOB21       | Yellowstone | 03N 28E 31 BC             | 04 08 76 Creek                  | 2 cfs (E)                                      | Sep. area at edge of field                   | 8767                                 | 20                   | yes            |                   |                                   |                        |                 |              |
| 20         | WOB41       | Yellowstone | 03N 30E 20 A              | 10 12 76 Creek                  | no flow  | Razor Creek NE of Shepherd                   | 10600                                |                      | no             |                   |                                   |                        |                 |              |
| 21         | WOB42       | Yellowstone | 03N 30E 29 CB             | 10 12 76 Pond                   | no flow  | Pompeys Pillar Creek                         |                                      |                      | no             |                   |                                   |                        |                 |              |
| 22         | WOB8        | Yellowstone | 03N 30E 36 CB             | 10 12 76 Pond                   | no flow  | Nibble Pond                                  | 3800                                 |                      | no             |                   |                                   |                        |                 |              |
| 23         | WOB60       | Yellowstone | 03N 30E 36 CB             | 10 12 76 Creek                  | 4 cfs (E)                                      | Tennille Creek                               | 630                                  |                      | no             |                   |                                   |                        |                 |              |
| 24         | WOB60       | Sweet Grass | 02N 15E 23 BB             | 11 32 Well                      | no flow  | Seven miles NE of Big Timber                 | 4600                                 |                      | yes            | 4600              |                                   |                        | 211FRNR         |              |
| 25         | WOB26       | Stillwater  | 02N 15E 23 BB             | 08 16 76 Sump                   | no flow  | Seven miles NE of Big Timber                 | 4600                                 |                      | yes            | 4600              |                                   |                        | 211CLRO         |              |
| 26         | WOB26       | Stillwater  | 02N 15E 24 BA             | 08 17 76 Pond                   | no flow  | Located 3.5 miles S SW of Rapelle            | 20390                                | 23                   | yes            |                   |                                   |                        |                 |              |
| 27         | WOB40       | Stillwater  | 02N 20E 04 CA             | 11 26 60 Well                   | no flow  | Three miles W SW of Twin Buttes              | 7210                                 |                      | yes            |                   |                                   |                        |                 |              |
| 28         | WOB4        | Stillwater  | 02N 20E 04 CB             | 04 21 76 Creek                  | 1 cfs (E)                                      | Located 1.5 miles SW of Dallman Lake         | 3260                                 |                      | yes            |                   |                                   |                        |                 | 211EGL       |
| 29         | WOB30       | Stillwater  | 02N 20E 06 AD A           | 08 17 76 Creek                  | 1 cfs (E)                                      | Middle Creek S of Rapelle                    | 2860                                 |                      | no             |                   |                                   |                        |                 |              |
| 30         | WOB3        | Stillwater  | 02N 20E 09 BB             | 04 21 76 Creek                  | 2 cfs (E)                                      | Cedar Creek at highway                       | 2450                                 |                      | no             |                   |                                   |                        |                 |              |
| 31         | WOB3        | Stillwater  | 02N 20E 09 BB             | 04 21 76 Creek                  | 2 cfs (E)                                      | Cedar Creek S of Rapelle                     | 2460                                 |                      | no             |                   |                                   |                        |                 |              |

**BILLINGS 1' x 2' Sheet (Con't.)**  
**Specific Conductivity Inventory Sheet (Con't.)**

| Map<br>ref.<br>no. | F-<br>ield<br>number | County      | Location<br>T R Sec Tract | Collection<br>Date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description | Specific<br>conductivity<br>at 25 °C | F-<br>ield<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|--------------------|----------------------|-------------|---------------------------|---------------------------------|--|------------------|--------------------------------------|--------------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 31                 | W082                 | Stillwater  | 02N 20E 09 EC             | 04 21 78                        | Ditch  | < 1 cfs (E)      | 5050                                 | no                       | no              |                   |                                   |                        |                 |              |
| 32                 | W081                 | Stillwater  | 02N 20E 16 BB             | 04 21 76                        | Creek  | 1 cfs (E)        | 3660                                 | no                       | no              | 4100              |                                   |                        | 331MDSN         |              |
| 33                 | 56M0010              | Stillwater  | 02N 20E 29 BB             | 12 56                           | Well   | 1 cfs (E)        |                                      | no                       | no              |                   |                                   |                        |                 |              |
| 34                 | W0832                | Stillwater  | 02N 20E 36 DD             | 08 17 76                        | Creek  | 1 cfs (E)        | 960                                  | no                       | no              |                   |                                   |                        |                 |              |
| 35                 | W0817                | Stillwater  | 02N 20E 36 DDD            | 04 26 76                        | Creek  | 20 gpm (E)       | 2040                                 | no                       | no              |                   |                                   |                        |                 |              |
| 36                 | W0810                | Stillwater  | 02N 21E 02 DD             | 04 21 76                        | Seep   | no flow          | 7070                                 | no                       | no              |                   |                                   |                        |                 |              |
| 37                 | W0811                | Stillwater  | 02N 21E 11 DD             | 04 21 76                        | Seep   | no flow          | 8500                                 | 11                       | yes             |                   |                                   |                        |                 |              |
| 38                 | W0844                | Stillwater  | 02N 21E 23 DDD            | 08 19 76                        | Lake   | no flow          | 5290                                 | 17                       | yes             |                   |                                   |                        |                 |              |
| 39                 | W0842                | Stillwater  | 02N 21E 24 ECC            | 08 18 76                        | Creek  | 8 cfs            | 5519                                 | 22                       | yes             | 3990              |                                   |                        | 211FNPR         |              |
| 40                 | 67M0001              | Stillwater  | 02N 21E 27 DB             | 01 30 67                        | Well   |                  |                                      |                          | yes             |                   |                                   |                        | 211FNPR         |              |
| 41                 | 66M0025              | Stillwater  | 02N 21E 27 DB             | 10 26 66                        | Well   |                  | 2949                                 | 9.5                      | yes             | 3990              |                                   |                        |                 |              |
| 42                 | W0815                | Stillwater  | 02N 21E 31 ABB            | 04 26 76                        | Creek  | 0.5 cfs (E)      | 13500                                | 11.5                     | yes             |                   |                                   |                        |                 |              |
| 43                 | W0816                | Stillwater  | 02N 21E 31 ABB            | 04 26 76                        | Creek  | no flow          | 9400                                 | 9                        | yes             |                   |                                   |                        |                 |              |
| 44                 | W0819                | Stillwater  | 02N 21E 31 CB             | 04 26 76                        | Well   | no flow          | 1690                                 | 11                       | yes             |                   |                                   |                        |                 |              |
| 45                 | W0847                | Stillwater  | 02N 21E 31 CD             | 08 19 76                        | Well   | no flow          |                                      |                          |                 |                   |                                   |                        |                 |              |
| 46                 | W0818                | Stillwater  | 02N 21E 31 CD             | 04 26 76                        | Well   |                  | 12100                                | 9                        | yes             |                   |                                   |                        |                 |              |
| 47                 | 56M0002              | Stillwater  | 02N 21E 34 DB             | 02 05 56                        | Well   |                  | 2860                                 |                          | yes             |                   |                                   |                        | 211FNPR         |              |
| 48                 | W0841                | Stillwater  | 02N 22E 15 BCC            | 08 18 78                        | Creek  | no flow          | 12990                                | 21                       | yes             |                   |                                   |                        |                 |              |
| 49                 | W0848                | Stillwater  | 02N 22E 19 ACD            | 08 20 76                        | Seep   | no flow          | 10760                                | 17                       | yes             |                   |                                   |                        |                 |              |
| 60                 | W0831                | Yellowstone | 02N 23E 04 DD             | 04 09 76                        | Creek  | 1 cfs (E)        | 8600                                 |                          | no              |                   |                                   |                        |                 |              |
| 51                 | W0859                | Yellowstone | 02N 23E 08 ABB            | 10 13 76                        | Ditch  | 1 cfs (E)        | 6850                                 |                          | no              |                   |                                   |                        |                 |              |
| 52                 | W0860                | Yellowstone | 02N 23E 08 ABB            | 04 09 78                        | Ditch  |                  | 10700                                | 15                       | yes             |                   |                                   |                        |                 |              |
| 53                 | W0865                | Yellowstone | 02N 23E 31 CCAC           | 04 09 78                        | Creek  | 1 gpm (E)        | 5080                                 |                          | no              |                   |                                   |                        |                 |              |
| 54                 | Not on map           |             | 02N 23E 32 ADD            | 10 13 78                        | Creek  |                  |                                      |                          |                 |                   |                                   |                        |                 |              |
| 56                 | W0822                | Yellowstone | 02N 24E 02 CA             | 04 09 78                        | Pond   |                  | 13600                                | 12                       | yes             |                   |                                   |                        |                 |              |
| 57                 | W088                 | Yellowstone | 02N 24E 08 B88B           | 06 24 76                        | Ditch  | no flow          | 5250                                 | 16.8                     | yes             |                   |                                   |                        |                 |              |
| 58                 | W0860                | Yellowstone | 02N 24E 12 BCC            | 10 13 78                        | Seep   | no flow          | 60900                                |                          | no              |                   |                                   |                        |                 |              |
| 59                 | W0834                | Yellowstone | 02N 24E 12 DA             | 10 04 78                        | Pond   | no flow          | 1500                                 |                          | no              |                   |                                   |                        |                 |              |
| 59                 | W0861                | Yellowstone | 02N 24E 16 AAA            | 10 13 78                        | Marsh  | no flow          | 1580                                 |                          | no              |                   |                                   |                        |                 |              |
| 60                 | W0864                | Yellowstone | 02N 24E 17 BAA            | 10 13 76                        | Lake   | no flow          | 16600                                |                          | no              |                   |                                   |                        |                 |              |

## BILLINGS 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>no. | County      | Location        | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description                            | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|--------------|-------------|-----------------|--------------------|--|---|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 61          | WOB88        | Yellowstone | 02N 24E 20 88CB | 06 24 78           | Creek  | Difficulty Creek                            | 1614                                 | 16.8                 | yes             |                   |                                   |                        |                 |              |
| 62          | WOB87        | Yellowstone | 02N 24E 22 AB8  | 10 13 78           | Marsh  | Saline seep marsh                           | 12900                                |                      | no              |                   |                                   |                        |                 |              |
| 63          | WOB83        | Yellowstone | 02N 24E 22 CDD  | 10 13 78           | Ditch  | Roadside ditch with salts along edge        | 16400                                |                      | no              |                   |                                   |                        |                 |              |
| 64          | WOB86        | Yellowstone | 02N 24E 32 CB8  | 06 24 78           | Creek  | 0.1 cfs (E)                                 | 1869                                 | 13.8                 | yes             |                   |                                   |                        |                 |              |
| 65          | WOB18        | Yellowstone | 02N 25E 07 CCC  | 06 25 78           | Pond   | Action Pond                                 | 45100                                | 19.8                 | yes             |                   |                                   |                        |                 |              |
| 66          | WOB10        | Yellowstone | 02N 26E 18 CAB  | 06 24 78           | Creek  | 0.6 cfs (E)                                 | 7290                                 | 18.2                 | yes             |                   |                                   |                        |                 |              |
| 67          | WOB52        | Yellowstone | 02N 26E 13 DDD  | 10 12 78           | Marsh  | Marshy ditch                                | 2460                                 |                      | no              |                   |                                   |                        |                 |              |
| 68          | WOB12        | Yellowstone | 02N 26E 14 DB   | 06 25 78           | Creek  | First tributary to Twelvemile Creek         | 3219                                 | 11.3                 | yes             |                   |                                   |                        |                 |              |
| 69          | WOB47        | Yellowstone | 02N 27E 04 AAA  | 10 12 78           | Marsh  | Marshy area at forks of Crooked Creek       | 5610                                 |                      | no              |                   |                                   |                        |                 |              |
| 70          | WOB46        | Yellowstone | 02N 27E 04 CDD  | 10 12 78           | Ditch  | Roadside ditch                              | 8410                                 |                      | no              |                   |                                   |                        |                 |              |
| 71          | WOB81        | Yellowstone | 02N 27E 06 AAD  | 10 12 78           | Seep   | no flow                                     |                                      |                      | no              |                   |                                   |                        |                 |              |
| 72          | WOB45        | Yellowstone | 02N 27E 06 CCC  | 10 12 78           | Canal  | 8 BWA canal, salts line banks               | 6760                                 |                      | no              |                   |                                   |                        |                 |              |
| 73          | WOB19        | Yellowstone | 02N 27E 09 AAA  | 04 08 78           | Seep   | 3 gpm (E)                                   | 1880                                 |                      | no              |                   |                                   |                        |                 |              |
| 74          | WOB44        | Yellowstone | 02N 27E 09 AAA  | 10 12 78           | Ditch  | N of fillings                               | 6065                                 | 15                   | yes             |                   |                                   |                        |                 |              |
| 75          | WOB43        | Yellowstone | 02N 27E 09 CB8  | 10 12 78           | Seep   | Roadside ditch 2 miles W of Shepherd        | 36000                                |                      | no              |                   |                                   |                        |                 |              |
| 76          | WOB53        | Yellowstone | 02N 27E 31 BAA  | 10 12 78           | Ditch  | Located 2 miles W of Shepherd               | 34150                                | 12                   | yes             |                   |                                   |                        |                 |              |
| 77          | WOB001       | Yellowstone | 02N 28E 31 DB   | 11 45              | Well   | Along road in a seep area                   | 570                                  |                      | no              | 3160              |                                   |                        | 3201SLP         |              |
| 78          | WOB9         | Sweet Grass | 01N 16E 09 AB8  | 10 27 78           | Creek  | Located 1.5 miles SE of Huntley             | 8190                                 |                      | no              |                   |                                   |                        |                 |              |
| 79          | WOB29        | Stillwater  | 01N 16E 09 BCC  | 10 27 78           | Creek  | 0.1 cfs (E)                                 | 280                                  |                      | no              |                   |                                   |                        |                 |              |
| 80          | WOB20        | Stillwater  | 01N 20E 01 DA   | 04 26 78           | Creek  | Sweet Grass Creek                           | 1020                                 |                      | no              |                   |                                   |                        |                 |              |
| 81          | WOB33        | Stillwater  | 01N 20E 01 DAD  | 08 17 78           | Creek  | Toll Creek by power lines                   |                                      |                      | no              |                   |                                   |                        |                 |              |
| 82          | WOB35        | Stillwater  | 01N 20E 13 DAA  | 08 17 78           | Creek  | Toll Creek 1.8 miles SE of Battle Butte     | 980                                  |                      | no              |                   |                                   |                        |                 |              |
| 83          | WOB14        | Stillwater  | 01N 21E 02 BC   | 04 26 78           | Seep   | Greenwood Creek 3 miles SSE of Battle Butte | 980                                  |                      | no              |                   |                                   |                        |                 |              |
| 84          | WOB43        | Stillwater  | 01N 21E 02 BC   | 04 26 78           | Seep   | Located 0.25 miles from farm buildings      | 8800                                 | 9.6                  | yes             |                   |                                   |                        |                 |              |
| 85          | WOB13        | Stillwater  | 01N 21E 02 CB   | 08 18 78           | Seep   | Located 0.6 mile SW of Rattlesnake Ridge    | 6490                                 | 16                   | yes             |                   |                                   |                        |                 |              |
| 86          | WOB34        | Stillwater  | 01N 21E 02 CC   | 04 26 78           | Creek  | Bert Creek 0.5 mile S of farm buildings     | 3680                                 | 8                    | yes             |                   |                                   |                        |                 |              |
| 87          | WOB21        | Stillwater  | 01N 21E 06 DCO  | 08 17 78           | Pond   | Greenwood Creek 3 miles SE of Battle Butte  | 7600                                 |                      | no              |                   |                                   |                        |                 |              |
| 88          | WOB21        | Stillwater  | 01N 21E 07 AB   | 04 26 78           | Creek  | Greenwood Creek 0.4 mile E of intersection  | 2350                                 |                      | no              |                   |                                   |                        |                 |              |
| 89          | WOB22        | Stillwater  | 01N 21E 08 AA   | 04 26 78           | Seep   | Located 0.9 mile E of farm buildings        | 7770                                 | 8                    | yes             |                   |                                   |                        |                 |              |
| 90          | WOB24        | Stillwater  | 01N 21E 11 DC   | 04 26 78           | Creek  | Hopewell Creek at culvert                   | 3347                                 | 12                   | yes             |                   |                                   |                        |                 |              |
|             |              |             |                 |                    |  | Located 0.7 mile W of intersection          | 4980                                 |                      | no              |                   |                                   |                        |                 |              |

| Map<br>ref. | Field<br>number | County      | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>Est-<br>measured | Site description   | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>ft. | Well<br>level<br>ft. | Static<br>water<br>depth<br>ft. | Acquirer<br>code | Owner's name |
|-------------|-----------------|-------------|---------------------------|---------------------------------|--------|-----------------------------------|--|--------------------------------------|---------------------|-----------------|-----------------|----------------------|---------------------------------|------------------|--------------|
| 91          | WQB 26          | Sillwater   | 01N 21E 17 QCD            | 08 18 78                        | Creek  | no flow                           | Unmeasured creek 1.5 miles S of Big Lake                 | 2293                                 | 20                  | yes             |                 |                      |                                 |                  |              |
| 92          | WQB12           | Sillwater   | 01N 21E 15 DDD            | 04 28 76                        | Seep   | no flow                           | Located 0.25 mile N of farm buildings                    | 1840                                 |                     | yes             | 4340            |                      |                                 | 217LKOT          |              |
| 93          | 39WQ001         | Sillwater   | 01N 21E 24 CC             | 05 18 39                        | Well   | 0.1 gpm                           | Located 1.5 miles SW of Hunter Lake                      |                                      |                     | yes             |                 |                      |                                 |                  |              |
| 84          | WQB37           | Sillwater   | 01N 22E 07 CA             | 08 18 78                        | Pond   | no flow                           | Located 0.5 mile N of Hunter Lake                        | 28270                                | 18                  | yes             |                 |                      |                                 |                  |              |
| 95          | WQB 39          | Sillwater   | 01N 22E 17 D              | 08 18 78                        | Lake   | no flow                           | Located 1.9 miles E of Hunter Lake                       | 12780                                | 19                  | yes             |                 |                      |                                 |                  |              |
| 96          | WQB 40          | Sillwater   | 01N 22E 18                | 08 18 78                        | Lake   | no flow                           | Hunter Lake 1 mile S of Big Lake                         | 18560                                | 17                  | yes             |                 |                      |                                 |                  |              |
| 97          | WQB 38          | Sillwater   | 01N 22E 33 BAC            | 08 18 78                        | Pond   | no flow                           | On unnamed creek 3 miles SE of Hunter Lake               | 24500                                | 17                  | yes             |                 |                      |                                 |                  |              |
| 98          | WQB6            | Yellowstone | 01N 23E 03 DDD            | 06 24 78                        | Creek  | 1 cfs (IE)                        | Unmeasured creek   | 4607                                 | 12                  | yes             |                 |                      |                                 |                  |              |
| 99          | WQB5            | Yellowstone | 01N 23E 05 DDD            | 06 24 78                        | Creek  | 1 cfs (IE)                        | Unmeasured creek   | 4287                                 | 13.2                | yes             |                 |                      |                                 |                  |              |
| 100         | WQB 4           | Yellowstone | 01N 23E 06 BC             | 08 24 78                        | Creek  | 2 cfs (IE)                        | Cole Creek   | 1627                                 | 12.8                | yes             |                 |                      |                                 |                  |              |
| 101         | WQB3            | Yellowstone | 01N 23E 06 DD             | 08 24 78                        | Creek  | 1 cfs (IE)                        |  |                                      |                     |                 |                 |                      |                                 |                  |              |
| 102         | WQB11           | Yellowstone | 01N 24E 15 DCA            | 08 24 78                        | Creek  | 1.5 cfs (IE)                      | Cove Creek   | 1738                                 | 11                  | yes             |                 |                      |                                 |                  |              |
| 103         | WQB8            | Yellowstone | 01N 24E 01 BAC            | 03 21 57                        | Well   |                                   | Located 8.5 miles S of Worden                            | 3628                                 | 21.5                | yes             |                 |                      |                                 | 331MDSN          |              |
| 104         | 67WQ007         | Yellowstone | 01N 24E 01 BAC            | 03 25 57                        | Well   |                                   | Located 8.5 miles S of Worden                            | 3090                                 |                     | yes             | 3570            |                      |                                 | 377MDSN          |              |
| 105         | WQB 25          | Sillwater   | 01S 18E 01 DA             | 08 16 78                        | Seep   | 2 cfs (IE)                        | Near White Beaver Creek                                  | 800                                  |                     | no              |                 |                      |                                 |                  |              |
| 108         | WQB1            | Yellowstone | 01S 24E 05 CAC            | 08 24 78                        | Creek  | 10 cfs (IE)                       | Canyon Creek at bridge                                   | 3952                                 | 11.8                | yes             |                 |                      |                                 |                  |              |
| 107         | WQB2            | Yellowstone | 01S 24E 06 BBB            | 08 24 78                        | Creek  | 1 cfs (IE)                        | North Fork Canyon Creek                                  | 4298                                 | 11                  | yes             |                 |                      |                                 |                  |              |
| 108         | WQB69           | Yellowstone | 01S 24E 07 BBB            | 10 13 78                        | Seep   | no flow                           | Sagehen Creek  | 8950                                 |                     | no              |                 |                      |                                 |                  |              |
| 109         | WQB5            | Yellowstone | 01S 24E 11 BB             | 10 13 78                        | Creek  | 0.5 cfs (IE)                      | Canyon Creek at road                                     | 4030                                 |                     | no              |                 |                      |                                 |                  |              |
| 110         | WQB87           | Yellowstone | 01S 24E 22 CB             | 10 13 78                        | Creek  | no flow                           | Very small creek   | 24200                                |                     | no              |                 |                      |                                 |                  |              |
| 111         | WQB66           | Yellowstone | 01S 24E 32 DDD            | 10 13 78                        | Creek  | < 1 gpm (IE)                      | Small creek through saline seep area                     | 14600                                |                     | no              |                 |                      |                                 |                  |              |
| 112         | not on map      |             |                           |                                 |        |                                   |  |                                      |                     |                 |                 |                      |                                 |                  |              |
| 113         | WQB27           | Sillwater   | 02S 21E 08 DAA            | 08 17 78                        | Creek  | 0.8 cfs (IE)                      | Town Creek 3.2 miles W of Horse Butte                    | 5300                                 |                     | no              |                 |                      |                                 |                  |              |
| 114         | WQB65           | Sillwater   | 02S 23E 20 DDD            | 01 04 78                        | Ditch  | 40 cfs (IE)                       | Big Ditch just N of Park City                            | 300                                  |                     | no              |                 |                      |                                 | 217LKOT          |              |
| 115         | 41WQ001         | Yellowstone | 02S 26E 07 DA             | 07 31 41                        | Well   | 1.5 gpm (IE)                      | Located 8 miles SW of Billings                           |                                      |                     |                 |                 |                      |                                 |                  |              |
| 116         | 44WQ004         | Yellowstone | 02S 26E 17 BC             | 08 12 44                        | Well   |                                   |  |                                      |                     |                 |                 |                      |                                 |                  |              |
| 117         | 44WQ054         | Sillwater   | 02S 26E 38 DDD            | 11 04 78                        | Creek  | 1.5 cfs (IE)                      | Groove Creek at highway bridge near Absarokee            | 310                                  |                     | yes             |                 |                      |                                 | 331MDSN          |              |
| 118         | WQB54           | Sillwater   | 02S 26E 38 DDD            | 11 04 78                        | Creek  | 0.1 cfs (IE)                      | Natural drain of swampy area across river from Absarokee | 440                                  |                     | no              |                 |                      |                                 |                  |              |
| 119         | WQB52           | Sillwater   | 03S 08E 36 DCC            | 11 04 78                        | Creek  | 140 cfs (IE)                      | Roadbed Creek at bridge near Absarokee                   | 380                                  |                     | no              |                 |                      |                                 |                  |              |
| 120         | WQB50           | Sillwater   | 03S 08E 12 CCA            | 11 04 78                        | Creek  | 1 cfs (IE)                        | Whitebird Creek at highway bridge                        | 100                                  |                     | no              |                 |                      |                                 |                  |              |

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|-------------|---------------|------------|---------------------------|---------------------------------|--|---|--------------------------------------|----------------------|-----------------|-------------------|--|-----------------|--------------|
| 121         | W0851         | Stillwater | 03S 19E 28 CO D           | 11 04 76 Creek                  | 0.5 cfs (E)                                    | Beaver Creek at highway bridge                  | 530                                  |                      | no              |                   |  |                 | Eliu         |
| 122         | W0819         | Stillwater | 03S 20E 07 ABC            | 11 17 76 Ditch                  | 2 cfs (E)                                      | Drainage ditch through 40 acre pasture          | 570                                  |                      | no              |                   |  |                 |              |
| 123         | W0810         | Carbon     | 04S 22E 18 ABC            | 10 15 76 Pond                   | no flow  |   | 890                                  |                      | no              |                   |  |                 |              |
| 124         | 60MA006       | Carbon     | 04S 23E 02 ABA            | 11 23 80 Well                   |  | Located 4 miles N of Edgar                      | 3230                                 |                      | yes             | 3440              |  | 217LKDT         |              |
| 125         | 57MA004       | Carbon     | 04S 23E 08 AA             | 03 25 57 Well                   |  | Located 4 miles N of Edgar                      | 2780                                 |                      | yes             | 3680              |  | 211FRNR         |              |
| 126         | 57MA012       | Carbon     | 04S 23E 08 AA             | 03 25 57 Well                   |  | Located 4 miles NW of Edgar                     | 3350                                 |                      | yes             | 3680              |  | 331MOSN         |              |
| 127         | W0859         | Carbon     | 04S 23E 25 AAA            | 10 14 78 Pond                   | no flow  | Marsh area in saline seep                       | 7980                                 |                      | no              |                   |  |                 |              |
| 128         | W0812         | Carbon     | 04S 23E 29 ABC            | 10 15 78 Pond                   | no flow  | Adjacent to seep area                           | 4020                                 |                      | no              |                   |  |                 |              |
| 129         | W0813         | Carbon     | 04S 23E 32 DCO            | 10 15 78 Creek                  | 1 cfs (E)                                      | Creek through seep area                         | 2160                                 |                      | no              |                   |  |                 |              |
| 130         | W0811         | Carbon     | 06S 22E 03 BD             | 10 15 78 Seep                   | < 1 gpm (E)                                    | Saline seep area                                | 7080                                 |                      | no              |                   |  |                 |              |
| 131         | W088          | Carbon     | 06S 23E 11 CCC            | 10 14 78 Marsh                  | no flow  | Marsh area along small seep                     | 4250                                 |                      | no              |                   |  |                 |              |
| 132         | 76W2660       | Carbon     | 06S 24E 04 AB             | 10 31 78 Creek                  |  | North Fork Fennelle Creek downstream from Edgar | 708                                  | 8                    | yes             |                   |  |                 | 331MOSN      |
| 133         | 76W2659       | Carbon     | 06S 24E 25 AB             | 10 31 78 Creek                  |  | North Fork Fennelle Creek upstream from Edgar   | 589                                  | 5                    | yes             |                   |  |                 |              |
| 134         | 41MA0006      | Carbon     | 06S 18E 04 BD             | 10 02 44 Well                   |  | Located 1.5 miles W of Rozcos                   | 589                                  |                      | yes             | 5130              |  |                 |              |
| 135         | W087          | Carbon     | 06S 23E 04 BA             | 10 14 78 Seep                   | no flow  | Saline seep                                     | 4240                                 |                      | no              |                   |  |                 |              |
| 136         | W086          | Carbon     | 06S 23E 22 AC             | 10 14 78 Marsh                  | no flow  | Marsh in a seep area                            | 2580                                 |                      | no              |                   |  |                 |              |
| 137         | 76W2658       | Carbon     | 06S 23E 33 CD             | 10 31 78 River                  |  | Clark's Fork River downstream from Bridger      | 1109                                 | 8                    | yes             |                   |  |                 | 320TSLP      |
| 138         | 60MA0009      | Carbon     | 06S 24E 04 DD             | 03 31 60 Well                   |  | Located 11 miles SW of Edgar                    |                                      |                      | yes             | 4200              |  |                 |              |
| 139         | 76W2655       | Carbon     | 07S 21E 10 DA             | 10 31 78 Creek                  |  | North Fork Dry Creek upstream from Bridger      | 696                                  | 6.5                  | yes             |                   |  |                 |              |
| 140         | 51MA0002      | Carbon     | 07S 22E 07 BB             | 08 08 51 Well                   |  | Located 10 miles NW of Balfry                   |                                      |                      | yes             | 4150              |  | 320TSLP         |              |
| 141         | 76W2656       | Carbon     | 07S 22E 18 CD             | 10 31 78 Creek                  |  | North Fork Dry Creek downstream from Bridger    | 652                                  | 8.5                  | yes             |                   |  |                 |              |
| 142         | W0814         | Carbon     | 07S 22E 26 DB             | 06 06 76 Canal                  |  | Near Clark's Fork River near Balfry             | 129                                  |                      | yes             |                   |  |                 |              |
| 143         | W084          | Carbon     | 07S 23E 03 CC             | 10 14 78 Seep                   | no flow  | Saline seep area                                | 5890                                 |                      | no              |                   |  |                 |              |
| 144         | W085          | Carbon     | 07S 23E 05 AAA            | 10 14 78 Ditch                  | no flow  | Irrigation ditch                                | 2480                                 |                      | no              |                   |  |                 |              |
| 145         | W083          | Carbon     | 07S 23E 23 CA             | 10 14 76 Pond                   | no flow  | Pond in a saline seep                           | 22100                                |                      | no              |                   |  |                 |              |
| 146         | 76MA0932      | Carbon     | 06S 20E 30 DAB            | 07 28 76 Well                   | 9 gpm (M)                                      | Sheridan Campground well number 2               | 89                                   | 3                    | yes             | 6380              |  |                 |              |
| 147         | 76W2667       | Carbon     | 06S 22E 26 DB             | 10 31 78 River                  |  | Clark's Fork River near Balfry (upstream)       | 437                                  | 8.6                  | yes             |                   |  |                 |              |
| 148         | W081          | Carbon     | 06S 25E 04 BB             | 10 14 76 Pond                   | no flow  | Marsh in saline seep area                       | 760                                  |                      | no              |                   |  |                 |              |
| 149         | W082          | Carbon     | 06S 25E 09 DD             | 10 14 76 Pond                   | no flow  | Large pond in marsh by saline seep area         | 960                                  |                      | no              |                   |  |                 |              |

## 14 BILLINGS

## BILLINGS

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T E Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Mange-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 2                  | 03N 20E 33                | 08 17 76                        | Lake   | 79              | 596                    | 3080           | 18                    |              |                        |                               | 733                                     | 28                                   | 570              | 7520                          |
| 3                  | 03N 20E 36 AA             | 04 21 76                        | Creek  | 309             | 741                    | 2500           | 13                    |              |                        |                               | 604                                     |                                      | 252              | 8250                          |
| 5                  | 03N 21E 33 DBA            | 08 19 76                        | Lake   | 60              | 243                    | 1400           | 21                    |              |                        |                               | 153                                     | 54                                   | 190              | 3660                          |
| 6                  | 03N 22E 20 DCD            | 08 19 76                        | Creek  | 12.8            | 1807                   | 2620           | 29                    |              |                        |                               | 396                                     |                                      | 430              | 11600                         |
| 11                 | 03N 24E 20 CA             | 06 25 76                        | Pond   | 62              | 25.8                   | 125            | 11.4                  |              |                        |                               | 259                                     |                                      | 34.8             | 279                           |
| 14                 | 03N 24E 35 BC             | 04 09 76                        | Creek  | 107             | 143                    | 570            | 5.5                   |              |                        |                               | 463                                     | 5                                    | 80               | 1540                          |
| 15                 | 03N 27E 19 CC             | 04 08 76                        | Ditch  | 455             | 1922                   | 4000           | 23.4                  |              |                        |                               | 243                                     | 31                                   | 46               | 16200                         |
| 19                 | 03N 28E 31 BC             | 04 08 76                        | Creek  | 329             | 320                    | 1100           | 12.5                  |              |                        |                               | 415                                     |                                      | 36               | 4020                          |
| 23                 | 02N 15E 23 BB             | 11 32                           | Well   |                 |                        | 860*           |                       |              |                        |                               | 1580                                    |                                      | 87               | 16                            |
| 24                 | 02N 15E 23 BB             |                                 | Well   | 150             | 45                     | 3600*          |                       |              |                        |                               | 340                                     |                                      | 5800             | 22                            |
| 25                 | 02N 19E 13 ADB            | 08 16 76                        | Seep   | 368             | 1507                   | 5480           | 15                    |              |                        |                               | 442                                     |                                      | 510              | 17200                         |
| 26                 | 02N 19E 24 BA             | 08 17 76                        | Pond   | 493             | 854                    | 770            | 13                    |              |                        |                               | 335                                     |                                      | 208              | 4840                          |
| 27                 | 02N 20E 04 CA             | 11 25 80                        | Well   | 10              | 2                      | 780*           |                       |              |                        |                               | 630                                     | 58                                   | 630              | 13                            |
| 33                 | 02N 20E 28 BB             | 12 56                           | Well   | 340             | 84                     | 400*           |                       |              |                        |                               | 196                                     |                                      | 110              | 1700                          |
| 37                 | 02N 21E 11 DD             | 04 21 76                        | Seep   | 353             | 427                    | 1130           | 6                     |              |                        |                               | 340                                     |                                      | 260              | 4250                          |
| 38                 | 02N 21E 23 DDD            | 08 19 76                        | Lake   | 50              | 225                    | 1035           | 16                    |              |                        |                               | 147                                     | 53                                   | 185              | 2750                          |
| 39                 | 02N 21E 24 BCC            | 08 18 76                        | Creek  | 24.8            | 285                    | 945            | 12                    |              |                        |                               | 197                                     | 84                                   | 150              | 2680                          |
| 40                 | 02N 21E 27 DB             | 01 30 67                        | Well   | 290             | 65                     | 10000          | 40                    |              |                        |                               | 769                                     |                                      | 16000            |                               |
| 41                 | 02N 21E 27 DB             | 10 26 66                        | Well   | 370             | 34                     | 9800           | 25                    |              |                        |                               | 1010                                    |                                      | 15000            | 10                            |
| 42                 | 02N 21E 31 AA             | 04 22 76                        | Creek  | 132             | 144                    | 336            | 3.4                   |              |                        |                               | 420                                     |                                      | 45               | 1180                          |
| 43                 | 02N 21E 31 BBB            | 04 22 76                        | Seep   | 411             | 905                    | 2750           | 10                    |              |                        |                               | 626                                     |                                      | 290              | 9400                          |
| 44                 | 02N 21E 31 CB             | 04 22 76                        | Well   | 152             | 33                     | 2400           | 5.2                   |              |                        |                               | 317                                     |                                      | 27               | 5150                          |
| 45                 | 02N 21E 31 CD             | 08 19 76                        | Well   | 56              | 20.3                   | 290            | 5.4                   |              |                        |                               | 506                                     |                                      | 13               | 420                           |
| 46                 | 02N 21E 31 CD             | 04 22 76                        | Well   | 431             | 771                    | 1995           | 4.8                   |              |                        |                               | 970                                     |                                      | 441              | 6850                          |
| 47                 | 02N 21E 34 DB             | 02 05 58                        | Well   | 31              | 12                     | 630*           |                       |              |                        |                               | 1050                                    |                                      | 460              |                               |
| 48                 | 02N 22E 15 BCC            | 08 18 76                        | Creek  | 373             | 1112                   | 2080           | 24                    |              |                        |                               | 590                                     |                                      | 500              | 8750                          |
| 49                 | 02N 22E 19 ACD            | 06 20 76                        | Seep   | 506             | 737                    | 1880           | 41                    |              |                        |                               | 372                                     |                                      | 735              | 7110                          |
| 52                 | 02N 23E 21 AC             | 04 09 76                        | Ditch  | 317             | 655                    | 2500           | 25                    |              |                        |                               | 743                                     |                                      | 515              | 7250                          |
| 55                 | 02N 24E 02 CA             | 04 09 76                        | Pond   | 458             | 1481                   | 2960           | 24.3                  |              |                        |                               | 162                                     | 115                                  | 84               | 13000                         |
| 56                 | 02N 24E 06 BBBB           | 06 24 76                        | Ditch  | 148             | 199                    | 818            | 17                    |              |                        |                               | 488                                     |                                      | 209              | 2180                          |
| 61                 | 02N 24E 20 BBBC           | 06 24 76                        | Creek  | 75              | 94                     | 125            | 4.9                   |              |                        |                               | 340                                     |                                      | 41               | 496                           |
| 64                 | 02N 24E 32 CBB            | 06 24 76                        | Creek  | 119             | 71                     | 193            | 4.9                   |              |                        |                               | 431                                     |                                      | 77               | 496                           |
| 65                 | 02N 25E 07 CCC            | 06 25 76                        | Pond   | 389             | 6735                   | 9310           | 28                    |              |                        |                               | 607                                     | 316                                  | 38.2             | 50400                         |
| 66                 | 02N 25E 19 CAB            | 06 24 76                        | Creek  | 351             | 506                    | 950            | 10                    |              |                        |                               | 368                                     |                                      | 66               | 4400                          |
| 68                 | 02N 26E 14 DB             | 06 25 76                        | Creek  | 70              | 31.5                   | 864            | 4.4                   |              |                        |                               | 738                                     |                                      | 34.3             | 1480                          |
| 73                 | 02N 27E 07 AA             | 04 08 76                        | Seep   | 368             | 164                    | 775            | 7.8                   |              |                        |                               | 368                                     |                                      | 38               | 2620                          |
| 75                 | 02N 27E 09 CBB            | 10 12 76                        | Seep   | 411             | 3481                   | 8110           | 49                    |              |                        |                               | 1285                                    |                                      | 260              | 29200                         |
| 77                 | 02N 28E 31 DB             | 11 45                           | Well   | 53              | 20                     | 890*           |                       |              |                        |                               | 230                                     |                                      | 57               | 1800                          |
| 83                 | 01N 21E 02 BC             | 04 22 76                        | Seep   | 281             | 646                    | 1150           | 12                    |              |                        |                               | 487                                     |                                      | 313              | 4900                          |
| 84                 | 01N 21E 02 CCB            | 08 19 76                        | Seep   | 297             | 458                    | 1000           | 11                    |              |                        |                               | 439                                     |                                      | 275              | 3950                          |
| 85                 | 01N 21E 02 CC             | 04 22 76                        | Creek  | 285             | 211                    | 328            | 3.7                   |              |                        |                               | 272                                     |                                      | 68               | 1830                          |
| 88                 | 01N 21E 06 AA             | 04 22 76                        | Seep   | 365             | 607                    | 965            | 15                    |              |                        |                               | 406                                     |                                      | 145              | 4800                          |
| 89                 | 01N 21E 10 AB             | 04 22 76                        | Creek  | 266             | 193                    | 340            | 4.6                   |              |                        |                               | 375                                     |                                      | 64               | 1756                          |
| 91                 | 01N 21E 12 CCD            | 06 18 76                        | Creek  | 32.9            | 65                     | 397            | 6.9                   |              |                        |                               | 765                                     | 13                                   | 79               | 450                           |
| 93                 | 01N 21E 24 CC             | 05 16 39                        | Well   |                 |                        | 2300*          |                       |              |                        |                               | 1710                                    | 59                                   | 2400             | 23                            |

Note All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium



## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluo-<br>ride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(umho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 2                  | <.1            | 8.4                  | 21        | 12370                | 12250                                       | 2850                           | 645                                       | 28.0  | WQB                           |                      |                        |                 | No                            | 76W1879       |
| 3                  | .28            | 8.07                 | 17        | 12000                | 12670                                       | 3820                           | 496                                       | 17.6  | WQB                           |                      |                        |                 | No                            | 76W0667       |
| 5                  | .01            | 8.9                  | 19        | 6490                 | 5990  | 1150                           | 218                                       | 18.0  | WQB                           |                      |                        |                 | No                            | 76W1887       |
| 6                  | <.1            | 8.0                  | 19        | 12750                | 16720                                       | 7470                           | 326                                       | 13.2  | WQB                           |                      |                        |                 | Yes                           | 76W1886       |
| 11                 | .02            | 7.46                 | 18.8      | 1123                 | 666   | 261                            | 212                                       | 2.4   | WQB                           |                      |                        |                 | Yes                           | 76W1224       |
| 14                 | .03            | 8.33                 | 18        | 3488                 | 3914  | 857                            | 388                                       | 9.5   | WQB                           |                      |                        |                 | Yes                           | 76W0674       |
| 15                 | 130            | 8.57                 | 17        | 16000                | 23150                                       | 3050                           | 333                                       | 18.3  | WQB                           |                      |                        |                 | No                            | 76W0567       |
| 19                 | .8             | 8.19                 | 20        | 8767                 |   | 2140                           | 340                                       | 10.3  | WQB                           |                      |                        |                 | No                            | 76W0566       |
| 23                 |                |                      |           |                      |   |                                | 1300                                      |   | Unknown                       | 211FRNR              |                        |                 | No                            | 32M0002       |
| 24                 |                |                      |           |                      |   | 560                            | 279                                       |   | Unknown                       | 211CLRD              |                        |                 | No                            | 00M0011       |
| 25                 | .06            | 8.11                 | 23        | 20390                | 25300                                       | 7120                           | 362                                       | 28.3  | WQB                           |                      |                        |                 | Yes                           | 76W1876       |
| 26                 | .01            | 8.1                  |           | 7210                 |   | 7144                           | 3920                                      | 275   | 5.3                           | WQB                  |                        |                 | No                            | 76W1877       |
| 27                 |                | 8.7                  |           |                      |   |                                | 33  | 779   | Unknown                       | 211EGLE              |                        |                 | No                            | 60M0002       |
| 33                 |                |                      |           |                      |   |                                | 1190                                      | 180   | Unknown                       | 331MDSN              |                        |                 | No                            | 58M0010       |
| 37                 | .06            | 7.85                 | 11        | 8600                 |   | 2640                           | 279                                       | 9.6   | WQB                           |                      |                        |                 | No                            | 76W0650       |
| 38                 | .03            | 8.3                  | 17        | 5290                 | 4382  | 1060                           | 210                                       | 12.9  | WQB                           |                      |                        |                 | Yes                           | 76W1885       |
| 39                 | .02            | 8.2                  | 22        | 5519                 | 4273  | 1240                           | 302                                       | 11.7  | WQB                           |                      |                        |                 | No                            | 76W1883       |
| 40                 |                | 7.90                 |           |                      |   | 1070                           | 631                                       | 132   | Unknown                       | 211FRNR              |                        |                 | No                            | 67M0001       |
| 41                 |                | 7.8                  |           |                      | 25740                                       | 1060                           | 828                                       | 121   | Unknown                       | 211FRNR              |                        |                 | No                            | 66M0025       |
| 42                 | .28            | 8.01                 |           | 2946                 | 2281  | 923                            | 346                                       | 4.8   | WQB                           |                      |                        |                 | No                            | 76W0663       |
| 43                 | 2              | 8.01                 | 11.8      | 13500                | 14390                                       | 4750                           | 514                                       | 17.4  | WQB                           |                      |                        |                 | No                            | 76W0564       |
| 44                 | <.01           | 7.26                 | 9         | 9400                 | 8099  | 516                            | 260                                       | 46.0  | WQB                           |                      |                        |                 | No                            | 76W0566       |
| 45                 | .03            | .87                  | 7.8       | 11                   | 1890  | 1054                           | 222                                       | 415   | 8.5                           | WQB                  |                        |                 | No                            | 76W1890       |
| 46                 | 14             | 7.88                 | 9         | 12100                | 11460                                       | 4250                           | 796                                       | 12.3  | WQB                           |                      |                        |                 | No                            | 76W0665       |
| 47                 |                | 7.0                  |           |                      |   | 127                            | 861                                       |   | Unknown                       | 211FRNR              |                        |                 | No                            | 58M0002       |
| 48                 | 93             | .28                  | 8.0       | 21                   | 12990                                       | 10720                          | 5510                                      | 484   | 12.2                          | WQB                  |                        |                 | No                            | 76W1888       |
| 49                 | <.1            | .18                  | 7.3       | 17                   | 10760                                       | 9264                           | 4820                                      | 306   | 12.2                          | WQB                  |                        |                 | Yes                           | 76W1889       |
| 52                 |                | 7.33                 | 16        | 10700                | 12010                                       | 3490                           | 610                                       | 18.4  | WQB                           |                      |                        |                 | No                            | 76W0565       |
| 55                 | 1              | 9.43                 | 12        | 13600                | 18290                                       | 7240                           | 325                                       | 15.1  | WQB                           |                      |                        |                 | No                            | 76W0569       |
| 56                 | .27            | .15                  | 7.9       | 15.8                 | 5250  | 3805                           | 1150                                      | 400   | 10.5                          | WQB                  |                        |                 | Yes                           | 76W1216       |
| 61                 | .49            | .28                  | 8.1       | 15.8                 | 1814  | 885                            | 578                                       | 279   | 2.3                           | WQB                  |                        |                 | Yes                           | 76W1215       |
| 64                 | 9.3            | .41                  | 7.95      | 13.8                 | 1929  | 1102                           | 590                                       | 354   | 3.5                           | WQB                  |                        |                 | Yes                           | 76W1214       |
| 66                 | .03            | .83                  | 8.9       | 19.8                 | 46150                                       | 53280                          | 28700                                     | 1030  | 22.9                          | WQB                  |                        |                 | Yes                           | 76W1225       |
| 66                 | 2.8            | .39                  | 8.05      | 18.2                 | 7290  | 6460                           | 2960                                      | 292   | 7.6                           | WQB                  |                        |                 | Yes                           | 76W1217       |
| 68                 | .06            | .58                  | 7.86      | 11.3                 |   | 2840                           | 306                                       | 606   | 21.5                          | WQB                  |                        |                 | Yes                           | 76W1219       |
| 73                 | .3             | 7.96                 | 16        | 5065                 |   | 1590                           | 302                                       | 8.5   | WQB                           |                      |                        |                 | No                            | 76W0566       |
| 75                 | .3             | 7.9                  | 12        | 34150                | 43190                                       | 15400                          | 1050                                      | 31.9  | WQB                           |                      |                        |                 | Yes                           | 76W2544       |
| 77                 |                |                      |           |                      |   | 215                            | 189                                       |   | Unknown                       | 320TSLP              |                        |                 | No                            | 46M0001       |
| 83                 | .29            | 7.82                 | 9.5       | 8900                 | 7789  | 3360                           | 400                                       | 8.6   | WQB                           |                      |                        |                 | No                            | 76W0662       |
| 84                 | .69            | .32                  | 8.0       | 16                   | 6490  | 6208                           | 2620                                      | 360   | 8.5                           | WQB                  |                        |                 | No                            | 76W1884       |
| 85                 | .82            | 8.0                  | 8         | 3098                 | 3580  | 1580                           | 305                                       | 3.8   | WQB                           |                      |                        |                 | No                            | 76W0661       |
| 88                 | .21            | 8.17                 | 8         | 7303                 | 7770  | 3410                           | 333                                       | 7.2   | WQB                           |                      |                        |                 | No                            | 76W0667       |
| 89                 | .88            | 8.07                 | 12        | 3347                 | 2999  | 1460                           | 307                                       | 3.9   | WQB                           |                      |                        |                 | No                            | 76W0568       |
| 91                 | .07            | 8.3                  | 20        | 2293                 | 1421  | 350                            | 649                                       | 9.2   | WQB                           |                      |                        |                 | No                            | 76W1878       |
| 93                 |                |                      |           |                      |   |                                | 1501                                      |   | Unknown                       | 217LKOT              |                        |                 | No                            | 39M0001       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 94                 | 01N 22E 07 CA             | 08 18 76                        | Pond   | 389             | 2995                   | 7420           | 13                    |              |                        |                               | 77                                      | 108                                  | 1500             | 23860                         |
| 95                 | 01N 22E 17 D              | 06 18 76                        | Lake   | 37.4            | 348                    | 3424           | 8.3                   |              |                        |                               | 833                                     | 146                                  | 648              | 6888                          |
| 96                 | 01N 22E 18                | 06 18 76                        | Lake   | 352             | 543                    | 5467           | 16                    |              |                        |                               | 427                                     |                                      | 1620             | 12500                         |
| 98                 | 01N 23E 03 DDD            | 06 24 76                        | Creek  |                 | 378                    | 539            | 6                     |              |                        |                               | 489                                     |                                      | 62               | 2140                          |
| 99                 | 01N 23E 05 DDD            | 06 24 76                        | Creek  | 204             | 177                    | 591            | 9.7                   |              |                        |                               | 395                                     |                                      | 126              | 1950                          |
| 100                | 01N 23E 06 BC             | 06 24 76                        | Creek  | 71              | 84                     | 168            | 5                     |              |                        |                               | 476                                     |                                      | 62               | 394                           |
| 101                | 01N 23E 06 DD             | 06 24 76                        | Creek  | 100             | 81                     | 160            | 2.6                   |              |                        |                               | 548                                     |                                      | 66               | 349                           |
| 102                | 01N 24E 15 DCA            | 06 24 76                        | Creek  | 190             | 209                    | 414            | 10                    |              |                        |                               | 258                                     |                                      | 45.1             | 1900                          |
| 103                | 01N 28E 01 BAC            | 03 21 57                        | Well   | 380             | 99                     | 380*           |                       |              |                        |                               | 370                                     |                                      | 44               | 1800                          |
| 104                | 01N 28E 01 BACC           | 03 25 57                        | Well   | 520             | 150                    | 110*           |                       |              |                        |                               |   |                                      | 52               | 1800                          |
| 106                | 01S 24E 05 CAC            | 06 24 76                        | Creek  | 118             | 103                    | 442            | 7.3                   |              |                        |                               | 356                                     |                                      | 83               | 1240                          |
| 107                | 01S 24E 06 BBE            | 06 24 76                        | Creek  | 275             | 235                    | 498            | 11                    |              |                        |                               | 209                                     |                                      | 70               | 2346                          |
| 115                | 02S 28E 07 DA             | 07 31 41                        | Well   |                 |                        | 1100*          |                       |              |                        |                               | 2200                                    | 120                                  | 260              | 48                            |
| 116                | 02S 29E 17 BC             | 09 12 44                        | Well   | 800             | 150                    | 410*           |                       |              |                        |                               | 170                                     |                                      | 120              | 2600                          |
| 124                | 04S 23E 02 ABA            | 11 23 80                        | Well   | 21              | 6                      | 890*           |                       |              |                        |                               | 2000                                    | 133                                  | 79               | 30                            |
| 125                | 04S 23E 08 AA             | 03 25 57                        | Well   |                 |                        | 750*           |                       |              |                        |                               | 1620                                    | 108                                  | 90               |                               |
| 126                | 04S 23E 08 AA             | 03 25 57                        | Well   | 690             | 230                    | 46*            |                       |              |                        |                               | 256                                     |                                      | 100              | 2300                          |
| 132                | 05S 24E 04 A6             | 10 31 76                        | Creek  | 46.5            | 30.1                   | 57             | 3.5                   |              |                        |                               | 287                                     |                                      | 7.6              | 115                           |
| 133                | 05S 24E 25 A8             | 10 31 76                        | Creek  | 58              | 28.1                   | 20             | 2.6                   |              |                        |                               | 299                                     |                                      | 4.3              | 46                            |
| 134                | 06S 18E 04 BD             | 10 02 44                        | Well   | 560             | 150                    | 77*            |                       |              |                        |                               | 45                                      |                                      | 19               | 2100                          |
| 137                | 06S 23E 33 CD             | 10 31 76                        | River  | 128             | 41.5                   | 63             | 4                     |              |                        |                               | 196                                     |                                      | 5.4              | 435                           |
| 138                | 06S 24E 04 DD             | 03 31 60                        | Well   | 260             | 39                     | 1.7            | .8                    |              |                        |                               | 233                                     |                                      | .5               | 620                           |
| 139                | 07S 21E 10 DA             | 10 31 76                        | Creek  | 57              | 13.9                   | .7             | 3                     |              |                        |                               | 329                                     |                                      | 2.4              | 100                           |
| 140                | 07S 22E 07 BB             | 08 08 51                        | Well   | 440             | 86                     | 110*           |                       |              |                        |                               | 256                                     |                                      | 51               | 1400                          |
| 141                | 07S 22E 16 CD             | 10 31 76                        | Creek  | 32.7            | 14.2                   | 97             | 3                     |              |                        |                               | 183                                     |                                      | 11               | 185                           |
| 142                | 07S 22E 26 DB             | 06 06 76                        | Canal  | 15.8            | 4.8                    | 3.5            |                       |              |                        |                               | 59                                      |                                      | .3               | 12.3                          |
| 146                | 06S 20E 30 DAAB           | 06 02 76                        | Well   | 11.4            | 2.48                   | 1.8            | 1.1                   | .05          | .01                    | 7.1                           | 42                                      |                                      | .8               | 6.8                           |
| 147                | 08S 22E 26 DB             | 10 31 76                        | River  | 53              | 15.5                   | 19             | 2.6                   |              |                        |                               | 207                                     |                                      | 2.7              | 71                            |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## of Selected Waters (Con't.)

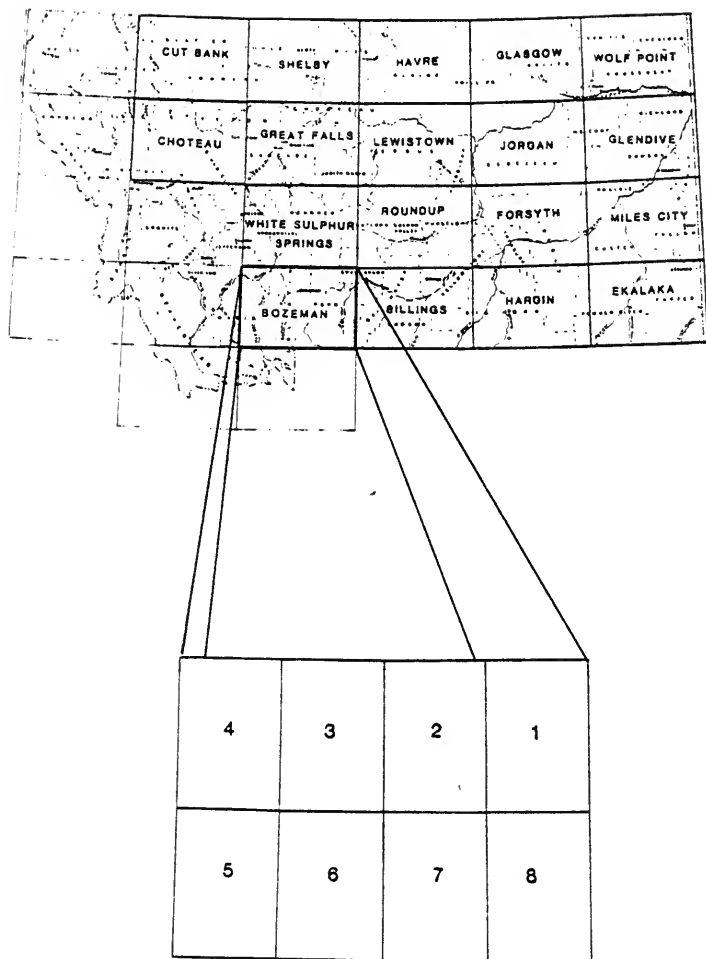
| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluo-<br>ride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(umho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 94                 | <.1            |                      | 9.4       | 16                   | 28270                                       | 36320                          | 13300                                     | 243   | 28.0                          | WQB                  |                        |                 | Yes                           | 76W1880       |
| 95                 | <.1            |                      | 9.1       | 19                   | 12780                                       | 11910                          | 1520                                      | 926   | 38.2                          | WQB                  |                        |                 | Yes                           | 76W1882       |
| 96                 | <.1            |                      | 7.9       | 17                   | 18560                                       | 20710                          | 3110                                      | 350   | 42.6                          | WQB                  |                        |                 | Yes                           | 76W1881       |
| 98                 | 19.4           | .27                  | 7.75      | 12                   | 4507  | 3375                           | 1560                                      | 385   | 5.9                           | WQB                  |                        |                 | Yes                           | 76W1213       |
| 99                 | .78            | .16                  | 7.8       | 13.2                 | 4247  | 3254                           | 1240                                      | 324   | 7.3                           | WQB                  |                        |                 | Yes                           | 76W1212       |
| 100                | 1.8            | .53                  | 8.2       | 12.8                 | 1827  | 1020                           | 520                                       | 391   | 3.2                           | WQB                  |                        |                 | Yes                           | 76W1211       |
| 101                | 6.5            | .95                  | 8.15      | 11                   | 1738  | 1036                           | 585                                       | 448   | 2.9                           | WQB                  |                        |                 | Yes                           | 76W1210       |
| 102                | .39            | .43                  | 8.05      | 21.5                 | 3628  | 2897                           | 1340                                      | 212   | 4.9                           | WQB                  |                        |                 | Yes                           | 76W1218       |
| 103                |                |                      | 7.4       |                      |   |                                | 1360                                      | 303   |                               | Unknown              | 331MDSN                | No              | 57M0008                       |               |
| 104                |                |                      | 6.8       |                      |   |                                | 1920                                      |   |                               | Unknown              | 337MSNC                | No              | 57M0007                       |               |
| 106                | 1.9            | .64                  | 8.2       | 11.8                 | 3052  | 2171                           | 720                                       | 292   | 7.2                           | WQB                  |                        |                 | Yes                           | 76W1208       |
| 107                | 2.8            | .31                  | 8.1       | 11                   | 4298  | 3541                           | 1660                                      | 171   | 5.3                           | WQB                  |                        |                 | Yes                           | 76W1208       |
| 115                |                |                      |           |                      |   |                                |   | 2000  |                               | Unknown              | 217LKQT                | No              | 41M0001                       |               |
| 118                |                |                      |           |                      |   |                                | 2120                                      | 139   |                               | Unknown              | 331MDSN                | No              | 44M0004                       |               |
| 124                |                |                      | 8.6       |                      |   |                                | 77  | 1860  |                               | Unknown              | 217LKQT                | No              | 80M0006                       |               |
| 125                |                |                      | 8.0       |                      |   |                                |   | 1510  |                               | Unknown              | 211FANR                | No              | 57M0004                       |               |
| 128                |                |                      | 7.2       |                      |   |                                | 2670                                      | 209   |                               | Unknown              | 331MDSN                | No              | 57M0012                       |               |
| 132                | 2.8            | .65                  | 8.2       | 8                    | 706   | 404                            | 240                                       | 235   |                               | WQB                  |                        | No              | 76W2660                       |               |
| 133                | .01            | .23                  | 8.1       | 5                    | 589   | 306                            | 260                                       | 245   | 0.5                           | WQB                  |                        | No              | 76W2659                       |               |
| 134                |                |                      |           |                      |   |                                | 2020                                      | 37  |                               | Unknown              | 331MDSN                | No              | 44M0005                       |               |
| 137                | .22            | .61                  | 7.9       | 9                    | 1109  | 773                            | 490                                       | 160   | 1.2                           | WQB                  |                        | No              | 76W2658                       |               |
| 138                |                |                      | 7.2       |                      |   |                                | 810                                       | 191   |                               | Unknown              |                        | No              | 80M0009                       |               |
| 139                | .13            | .39                  | 8.1       | 6.5                  | 696   | 418                            | 200                                       | 270   | 2.4                           | WQB                  |                        | No              | 76W2655                       |               |
| 140                |                |                      |           |                      |   |                                | 1450                                      | 210   |                               | Unknown              | 320TSLP                | No              | 51M0002                       |               |
| 141                | .15            | .18                  | 8         | 8.5                  | 652   | 433                            | 140                                       | 150   | 3.6                           | WQB                  |                        | No              | 76W2656                       |               |
| 142                |                |                      | 7.4       |                      | 129   | 95                             | 59  | 48  | 0.2                           | WQB                  |                        | No              | 76W1027                       |               |
| 146                | .117           | <.1                  | 7.01      | 3                    | 83  | 51                             | 39  | 35  | 0.1                           | USFS                 |                        | Yes             | 78M0932                       |               |
| 147                | .33            | .18                  | 8.2       | 8.5                  | 437   | 266                            | 195                                       | 170   | 0.6                           | WQB                  |                        | No              | 76W2657                       |               |

## BILLINGS 1° x 2° Sheet

## Trace Elements Analysis Sheet

| Map<br>no. | Location<br>T R Sec Tract | Alu-<br>minum<br>mg/kg | Anti-<br>mony<br>mg/kg | Ar. Baryt-<br>um<br>mg/kg | Ba-<br>ron<br>mg/kg | Cad-<br>mium<br>mg/kg | Chro-<br>mium<br>mg/kg | Cop-<br>per<br>mg/kg | Lead<br>mg/kg | Lith. Mar.<br>mg/kg | Nickel<br>mg/kg | Phosph-<br>ate<br>(Total)<br>mg/kg | Silic-<br>um<br>mg/kg | Stron-<br>tium<br>mg/kg | Tin<br>mg/kg | Zinc<br>mg/kg | Lab<br>number |
|------------|---------------------------|------------------------|------------------------|---------------------------|---------------------|-----------------------|------------------------|----------------------|---------------|---------------------|-----------------|------------------------------------|-----------------------|-------------------------|--------------|---------------|---------------|
| 6          | 01N 23E 20 DCD            | <1                     | <10                    | 9                         | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1886       |
| 8          | 01N 24E 20 DCD            | <1                     | <10                    | 11                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1224       |
| 9          | 01N 24E 20 CA             | 8                      | <10                    | 11                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W0574       |
| 14         | 02N 24E 30 CA             | 9                      | <10                    | 11                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1876       |
| 25         | 02N 19E 13 ACB            | 8                      | <10                    | 11                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1875       |
| 38         | 02N 21E 22 DCD            | 1                      | <10                    | 62                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1875       |
| 49         | 02N 22E 19 ACB            | <1                     | <10                    | 2.1                       | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1889       |
| 58         | 02N 22E 19 ACB            | 5                      | <10                    | 68                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1216       |
| 59         | 02N 24E 08 BBH            | 2                      | <10                    | 21                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1215       |
| 61         | 01N 24E 20 BBCH           | 1                      | <10                    | 23                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1214       |
| 64         | 02N 24E 32 CBH            | 2                      | <10                    | 3.0                       | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1225       |
| 66         | 02N 25E 07 CCC            | 2                      | <10                    | 3.8                       | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1225       |
| 68         | 02N 25E 19 CAB            | 2                      | <10                    | 50                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1217       |
| 75         | 02N 27E 09 CBH            | 3                      | <10                    | 68                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1219       |
| 84         | 01N 22E 07 CA             | <1                     | <10                    | 68                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W2544       |
| 94         | 01N 22E 17 D              | 19                     | <10                    | 10                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1880       |
| 96         | 01N 22E 17 D              | 20                     | <10                    | 10                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1882       |
| 98         | 01N 22E 18                | 18                     | <10                    | 10                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1881       |
| 88         | 01N 23E 18                | 2                      | <10                    | 41                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1213       |
| 88         | 01N 23E 03 DDD            | 2                      | <10                    | 36                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1212       |
| 99         | 01N 23E 05 DDD            | 2                      | <10                    | 36                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1211       |
| 100        | 01N 23E 08 C              | 3                      | <10                    | 24                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1210       |
| 100        | 01N 23E 08 C              | 2                      | <10                    | 29                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1210       |
| 102        | 01N 24E 15 DCA            | 3                      | <10                    | 5                         | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1218       |
| 105        | 02N 24E 08 CAB            | 5                      | <10                    | 37                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1208       |
| 105        | 02N 24E 08 CAB            | 2                      | <10                    | 27                        | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W1205       |
| 148        | 01S 20E 30 DAAB           | <2.0                   | <10                    | 2.7                       | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W0552       |
| 148        | 01S 20E 30 DAAB           | <10                    | <10                    | 2.7                       | <10                 | <10                   | <10                    | <10                  | <10           | <10                 | <10             | <10                                | <10                   | <10                     | <10          | <10           | 76W0552       |

# LOCATION BASE MAP



BOZEMAN 1° x 2° SHEET

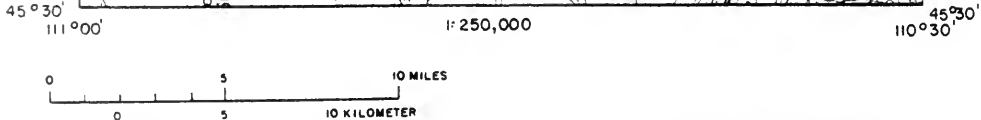
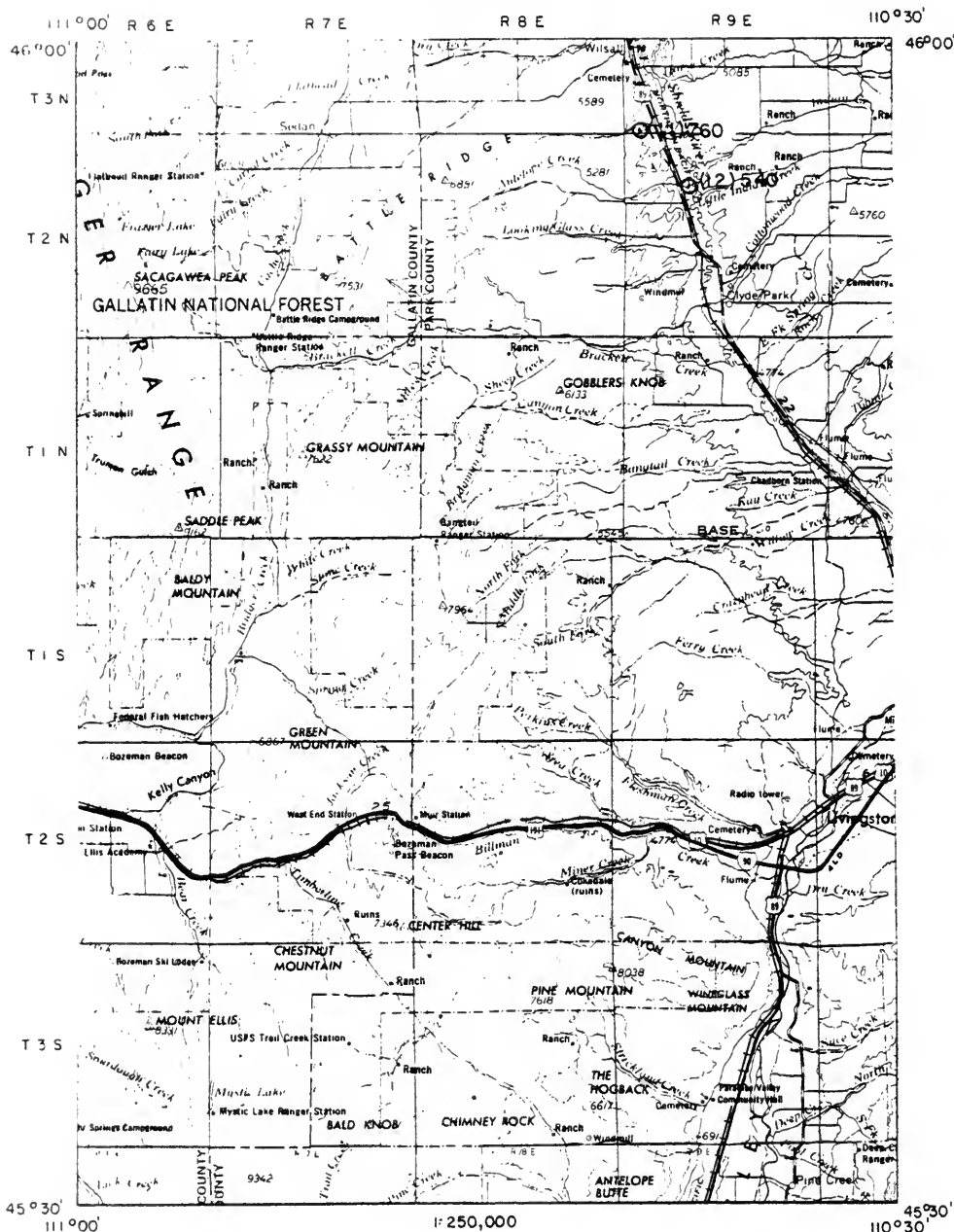


## BOZEMAN 1



# SPECIFIC CONDUCTANCE SURVEY

BOZEMAN 2

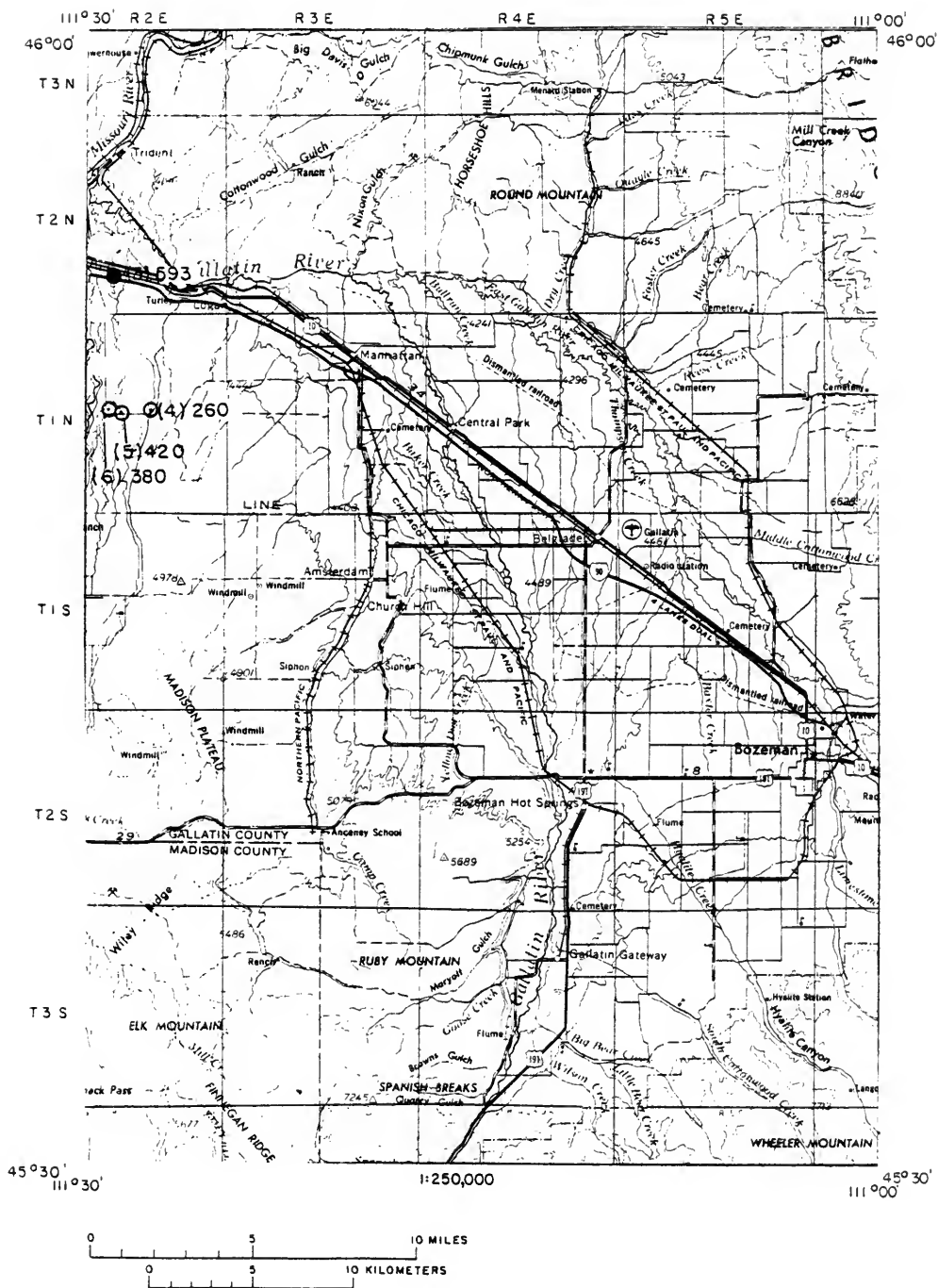


CONTOUR INTERVAL 100 FT



SPECIFIC CONDUCTANCE SURVEY

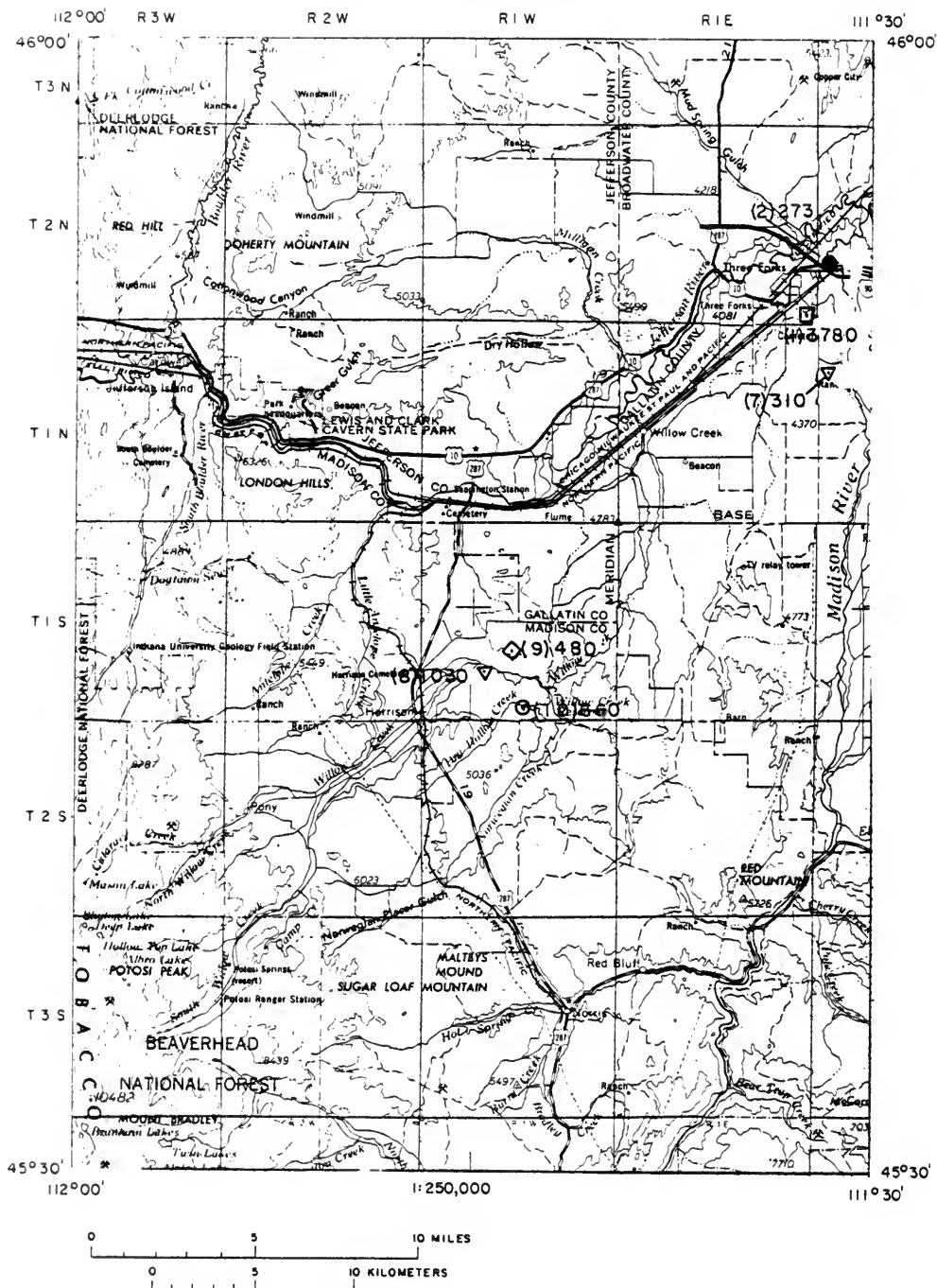
BOZEMAN 3



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

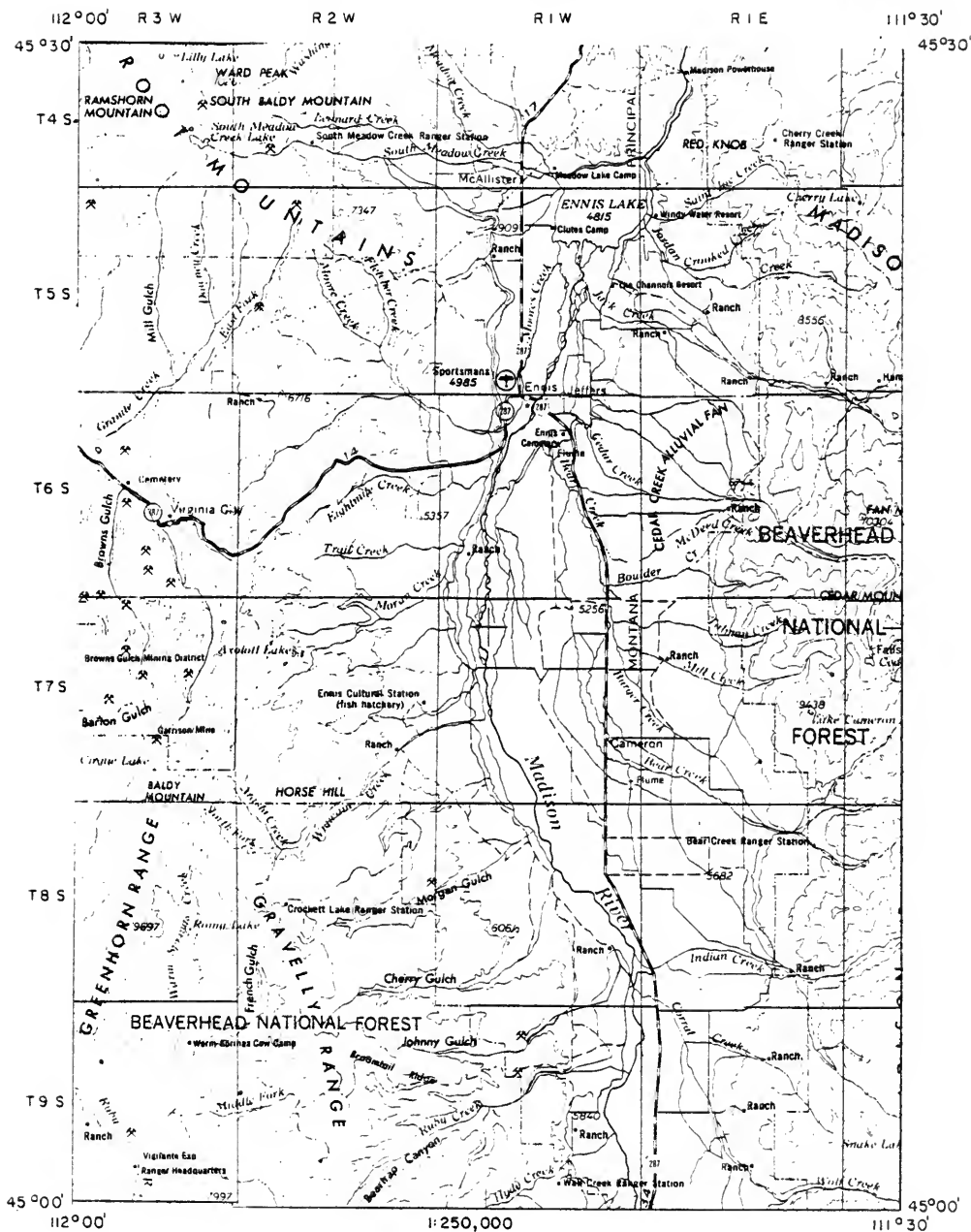
BOZEMAN 4



CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

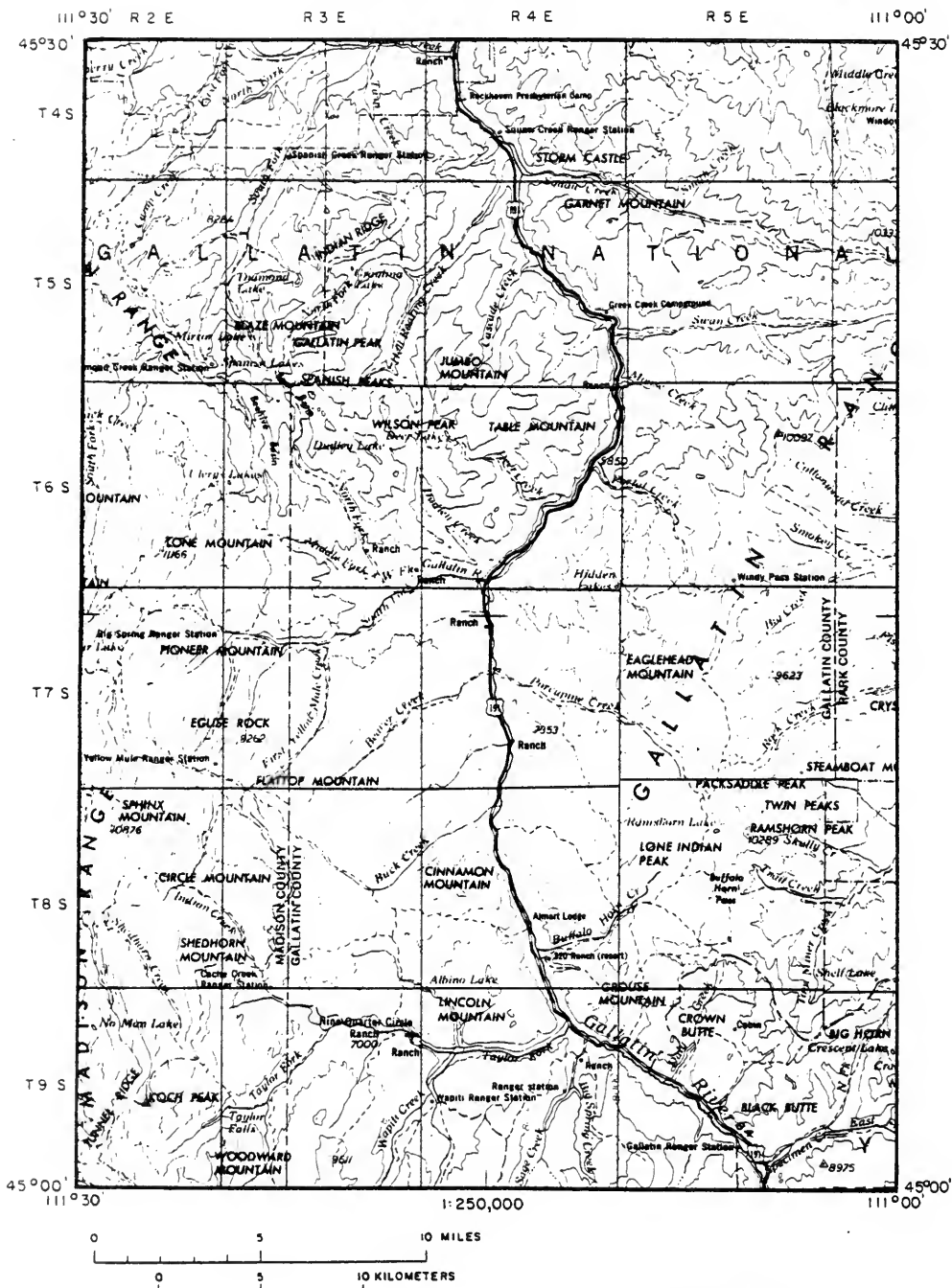
BOZEMAN 5



CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

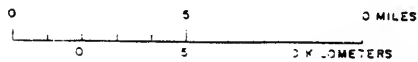
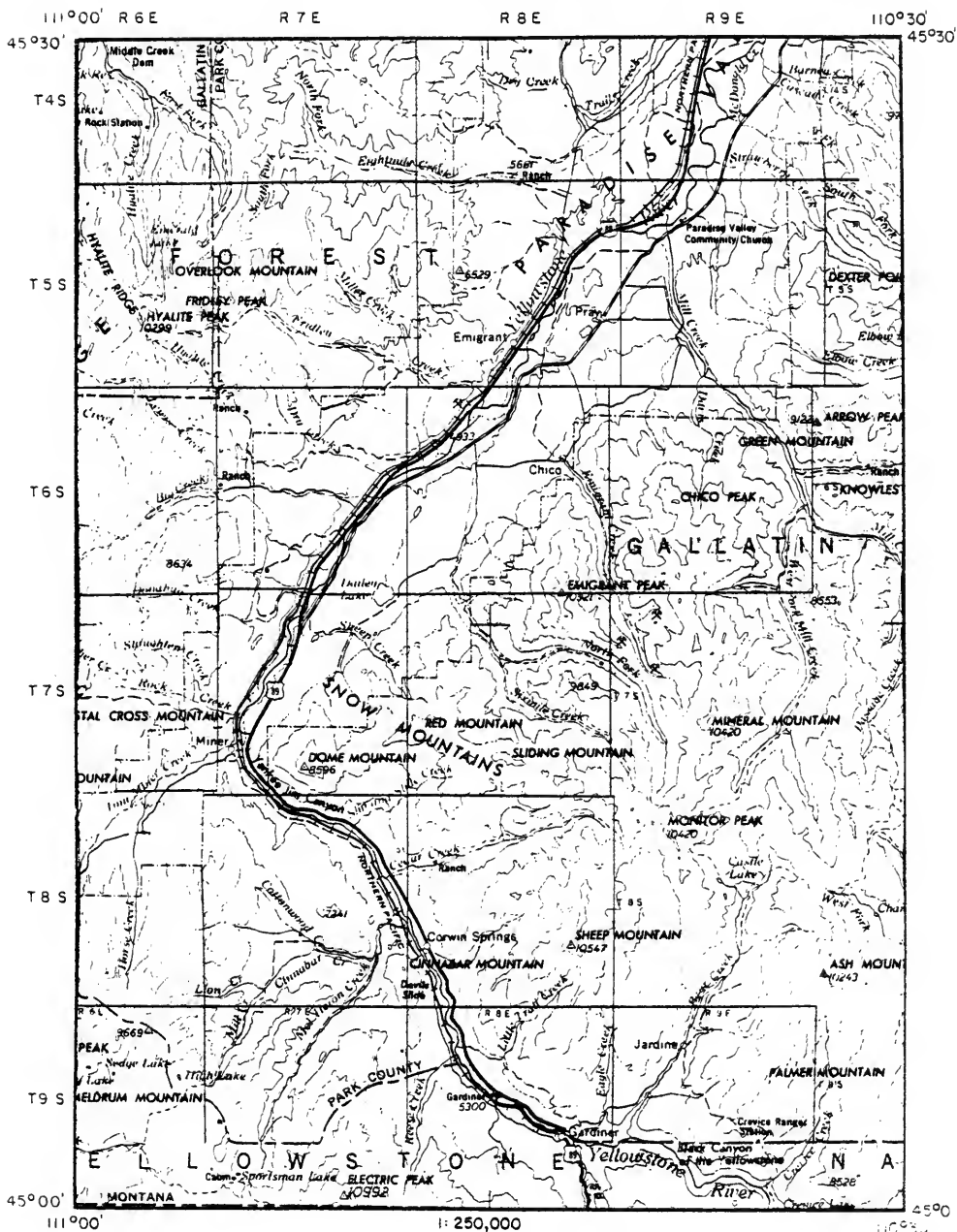
BOZEMAN 6



CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

BOZEMAN 7



## BOZEMAN 8



## BOZEMAN 1° x 2° Sheet

## Specific Conductivity Inventory Sheet

| Map<br>no | Field<br>ref | Field<br>number | County      | Location<br>T R S. Tract | Collection<br>Mo Day Yr | Flow or yield<br>Estimated<br>M=measured | Site description                                  | Specific<br>conductivity<br>at 25°C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>depth<br>ft. | Aquifer<br>code | Owner's name |
|-----------|--------------|-----------------|-------------|--------------------------|-------------------------|--|---|-------------------------------------|----------------------|-----------------|-----------------|--|-----------------|--------------|
| 1         | WGB1         |                 | Gallatin    | 02N 01E 36 DA            | 11 04 76 Pond           | no flow                                  | Low swampy area                                   | 3780                                | no                   | no              |                 |  |                 |              |
| 2         | WGB7         |                 | Gallatin    | 02N 02E 30 BAD           | 11 05 76 River          | 400 cfs (E)                              | Madison River                                     | 273                                 | yes                  | yes             |                 |  |                 |              |
| 3         | WGB5         |                 | Gallatin    | 02N 02E 28 DCC           | 11 05 76 Creek          | 5 cfs (E)                                | Ray Creek near highway                            | 593                                 | yes                  | yes             |                 |  |                 |              |
| 4         | WGB2         |                 | Gallatin    | 01N 02E 18 DCC           | 11 04 76 Creek          | 1 cfs (E)                                | Shon Creek  | 260                                 | no                   | no              |                 |  |                 |              |
| 5         | WGB3         |                 | Gallatin    | 01N 02E 16 DCC           | 11 04 76 Creek          | 4 cfs (E)                                | Spring Creek                                      | 420                                 | no                   | no              |                 |  |                 |              |
| 6         | WGB4         |                 | Gallatin    | 01N 02E 18 CDD           | 11 04 76 Creek          | 6 cfs (E)                                | Ray Creek   | 380                                 | no                   | no              |                 |  |                 |              |
| 7         | WGB1         |                 | Gallatin    | 01N 02E 07 B             | 11 04 76 Ditch          | no flow                                  | Ranch irrigation ditch                            | 310                                 | no                   | no              |                 |  |                 |              |
| 8         | WGB3         |                 | Madison     | 01S 01W 29 AD            | 11 05 76 Drain          | 2 cfs (E)                                | Drain from bench near dump                        | 1030                                | no                   | no              |                 |  |                 |              |
| 9         | WGB2         |                 | Madison     | 01S 01W 21 DC            | 11 05 76 Spring         | 25 gpm (E)                               | Below bench, irrigation above, 0.5 mile N of dump | 480                                 | no                   | no              |                 |  |                 |              |
| 10        | WGB1         |                 | Madison     | 01S 01W 34               | 11 04 75 Stream         | 4 cfs (E)                                | Dry Hollow Creek, dryland farming area            | 650                                 | no                   | no              |                 |  |                 |              |
| 11        | WGB2         |                 | Park        | 03N 05E 31 CD            | 09 08 76 Creek          | 0.5 cfs (E)                              | Namless creek 2 miles S of Wilsall                | 760                                 | no                   | no              |                 |  |                 |              |
| 12        | WGB1         |                 | Park        | 02N 05E 08 ACD           | 09 08 76 Creek          | 2 cfs (E)                                | Antelope Creek 2.5 miles N of Clyde Park on 289   | 600                                 | no                   | no              |                 |  |                 |              |
| 13        | WGB1         |                 | Sweet Grass | 01N 14E 07 AB            | 11 19 76 Ditch          | 10 cfs (E)                               | Older Creek irrigation return                     | 804                                 | yes                  | yes             |                 |  |                 |              |
| 14        | WGB2         |                 | Sweet Grass | 01N 13E 36 DAD           | 10 27 76 River          | 270 cfs (E)                              | Yellowstone River                                 | 324                                 | yes                  | yes             |                 |  |                 |              |
| 15        | WGB4         |                 | Sweet Grass | 01N 13E 34 CDD           | 10 27 76 Canal          | 2 cfs (E)                                | Irrigation canal                                  | 310                                 | no                   | no              |                 |  |                 |              |
| 16        | WGB3         |                 | Sweet Grass | 01N 13E 35 CAD           | 10 27 76 Ditch          | 1 cfs (E)                                | Cow Creek   | 370                                 | no                   | no              |                 |  |                 |              |
| 17        | WGB5         |                 | Sweet Grass | 01S 12E 12 ADA           | 10 27 76 Stream         | 2 cfs (E)                                | Duck Creek  | 360                                 | no                   | no              |                 |  |                 |              |
| 18        | 76M1971      |                 | Park        | 03N 10E 24               | 08 08 77 Creek          | 125 cfs (M)                              | Cottonwood Creek near Box                         | 60                                  | 7                    | yes             | 6415            |  |                 |              |

## 10 BOZEMAN

## BOZEMAN

## Chemical Analyses

| Map<br>ref.<br>no. | Location |     |        | Collection<br>date |    |    | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|----------|-----|--------|--------------------|----|----|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 2                  | 02N      | 02E | 30 BAD | 11                 | 05 | 76 | River  | 20.6            | 5.3                    | 28             | 4.5                   |              |                        |                               | 122                                     |                                      | 17               | 16                            |
| 3                  | 02N      | 02E | 28 OCC | 11                 | 05 | 76 | Creek  | 51              | 16.5                   | 54             | 9.3                   |              |                        |                               | 306                                     |                                      | 21               | 33                            |
| 13                 | 01N      | 14E | 07 AB  | 11                 | 18 | 75 | Ditch  | 67              | 14.1                   | 72             | 2.5                   |              |                        |                               | 317                                     | 6                                    | 8                | 94                            |
| 14                 | 01N      | 13E | 35 DAD | 10                 | 27 | 76 | River  | 26.9            | 11.6                   | 20             | 4.6                   |              |                        |                               | 152                                     |                                      | 8.4              | 21                            |
| 18                 | 03N      | 10E | 24     | 06                 | 08 | 77 | Creek  | 7.9             | .6                     | .9             | .3                    | .02          | <.01                   | 4.4                           | 27                                      |                                      | .4               | 2.7                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium



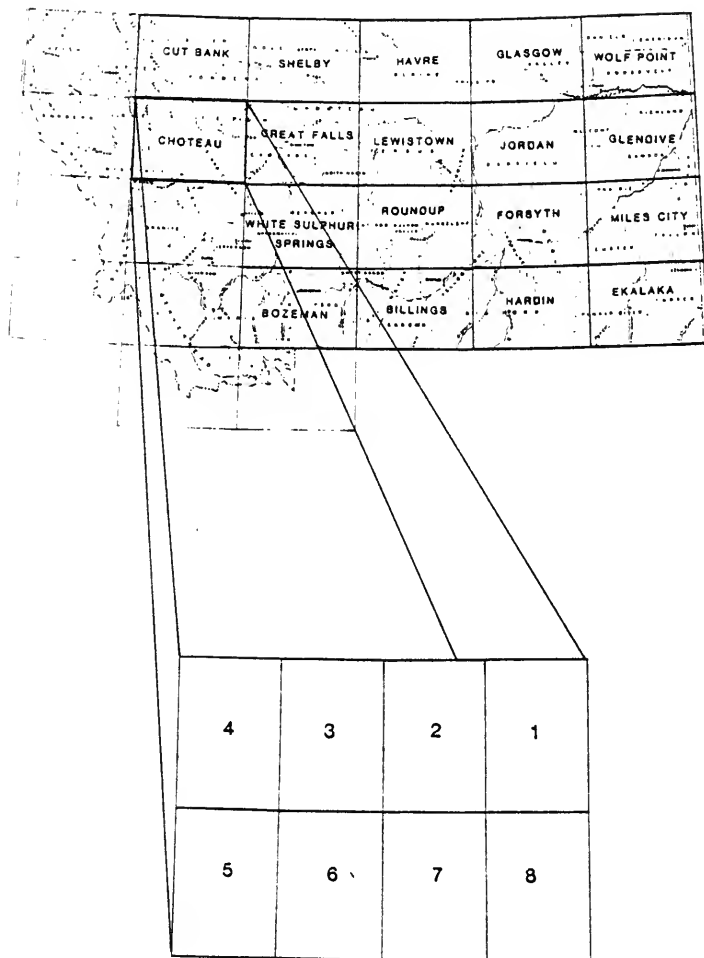
1° x 2° Sheet

## of Selected Waters

| Well<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|---------------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 2                   | .01            | 8.0             |           |                      | 273   | 150                            | 73  | 100   | 1.4                           | WQB                  |                        |                 | no                            | 76W2667       |
| 3                   | .5             | 8.2             |           |                      | 593   | 335                            | 195                                       | 250   | 1.7                           | WQB                  |                        |                 | no                            | 76W2656       |
| 13                  | .23            | 8.46            |           |                      | 804   | 580                            | 225                                       | 270   | 2.1                           | WQB                  |                        |                 | no                            | 75W2284       |
| 14                  | .01            | 7.9             |           |                      | 324   | 180                            | 120                                       | 125   | 0.6                           | WQB                  |                        |                 | no                            | 76W2549       |
| 18                  | .068           | <.1             | 7.47      | 7                    | 50  | 31                             | 22  | 22  | 0.1                           | USFS                 |                        |                 | no                            | 78M1971       |



# LOCATION BASE MAP

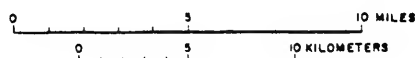
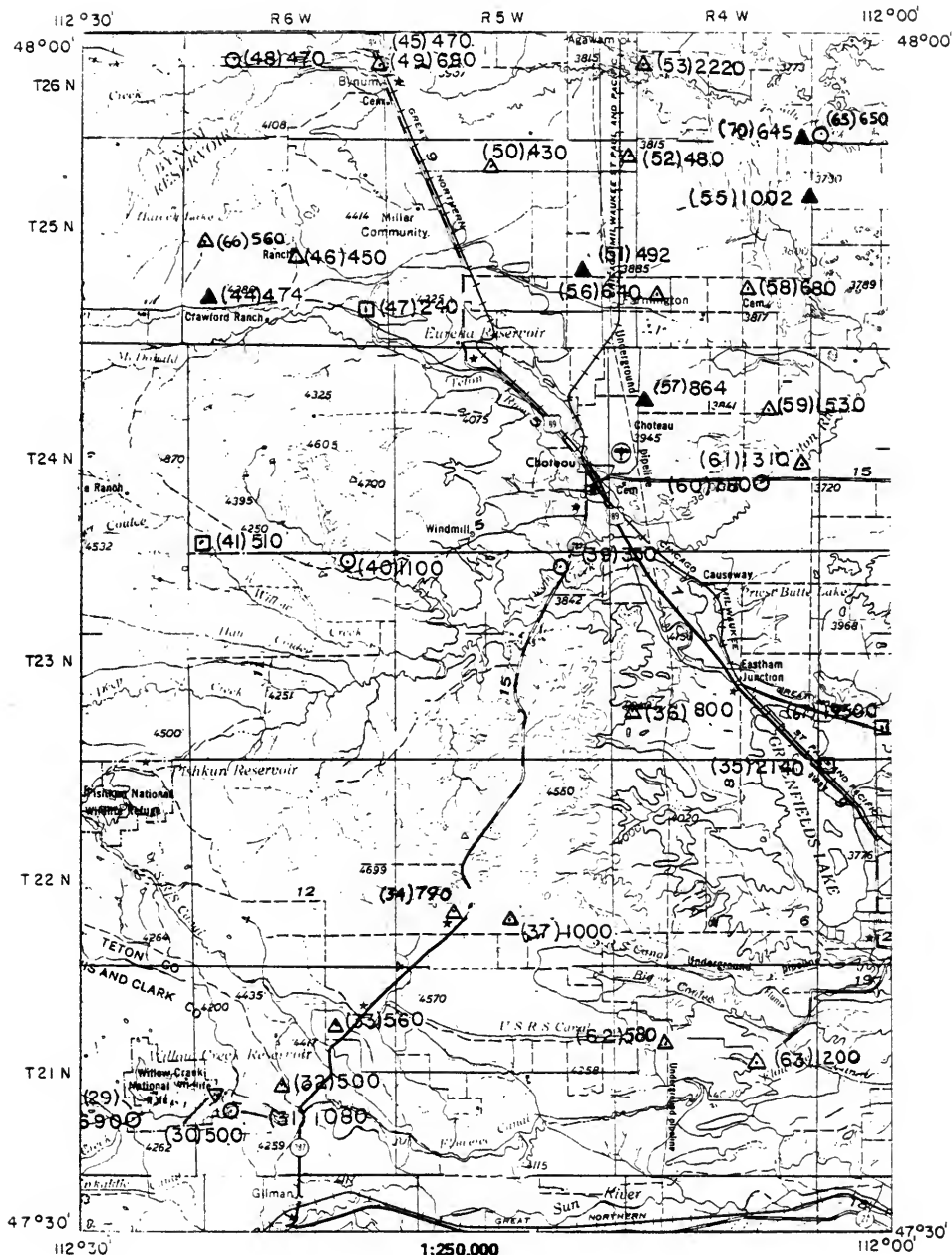


CHOTEAU 1° x 2° SHEET



# SPECIFIC CONDUCTANCE SURVEY

CHOTEAU 1



CONTOUR INTERVAL 100 FT

## CHATEAU 2

112°30'

48°00'

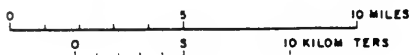
T21N



47°30'

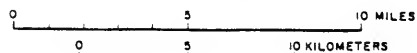
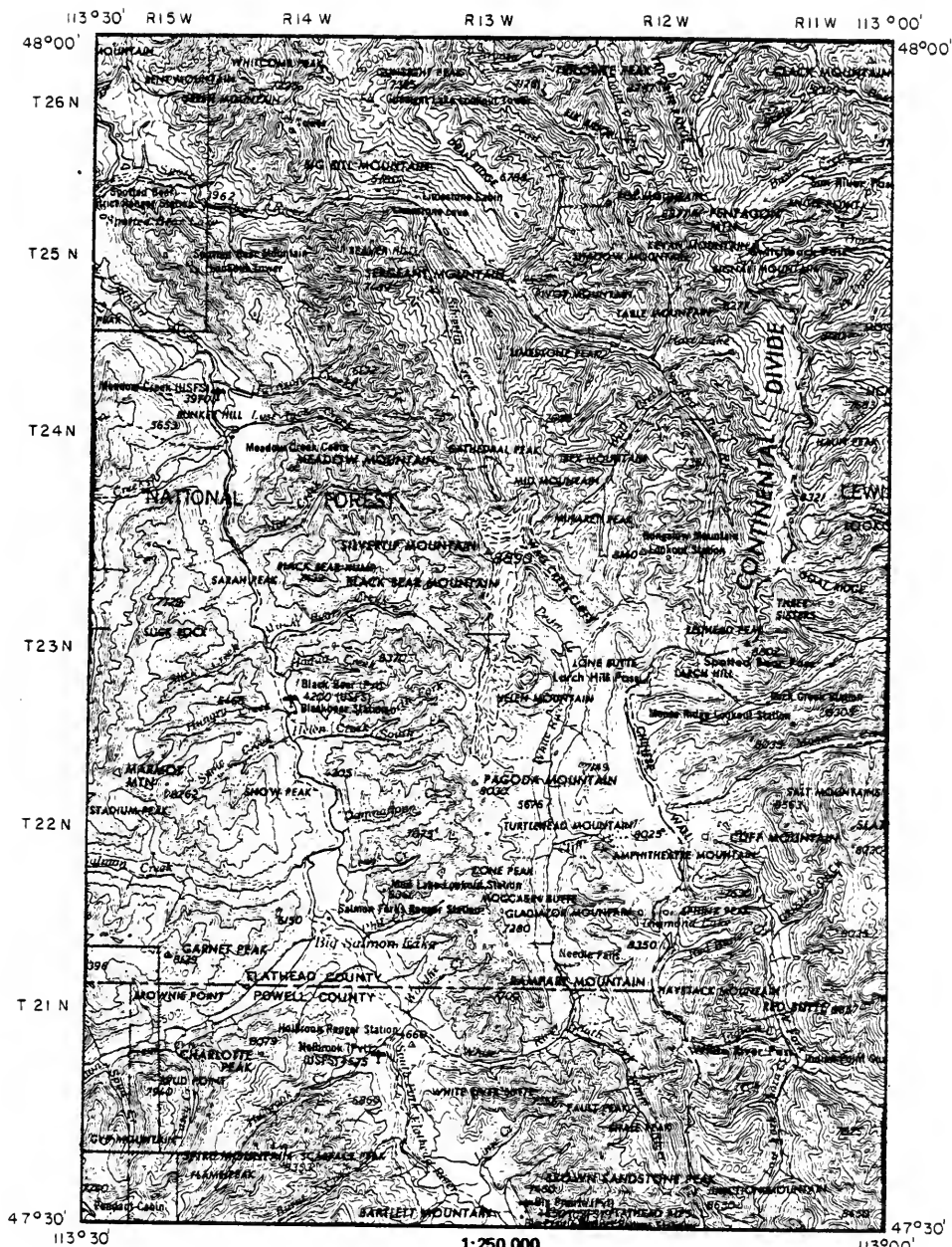
112 ° 30'

CONTOUR INTERVAL 100 FT



# SPECIFIC CONDUCTANCE SURVEY

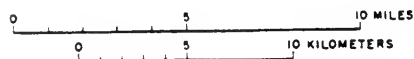
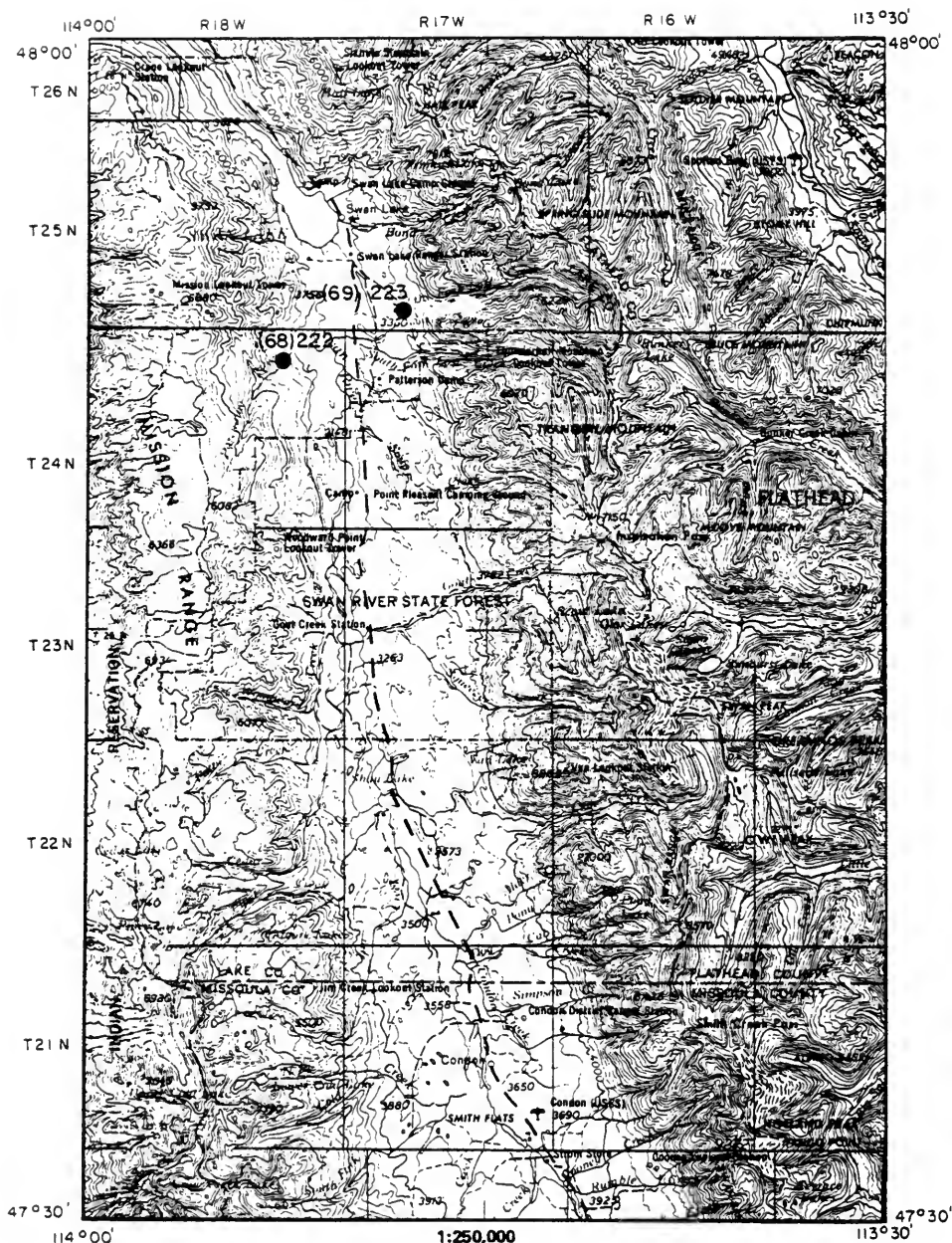
CHOTEAU 3



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

CWOTEAU 4

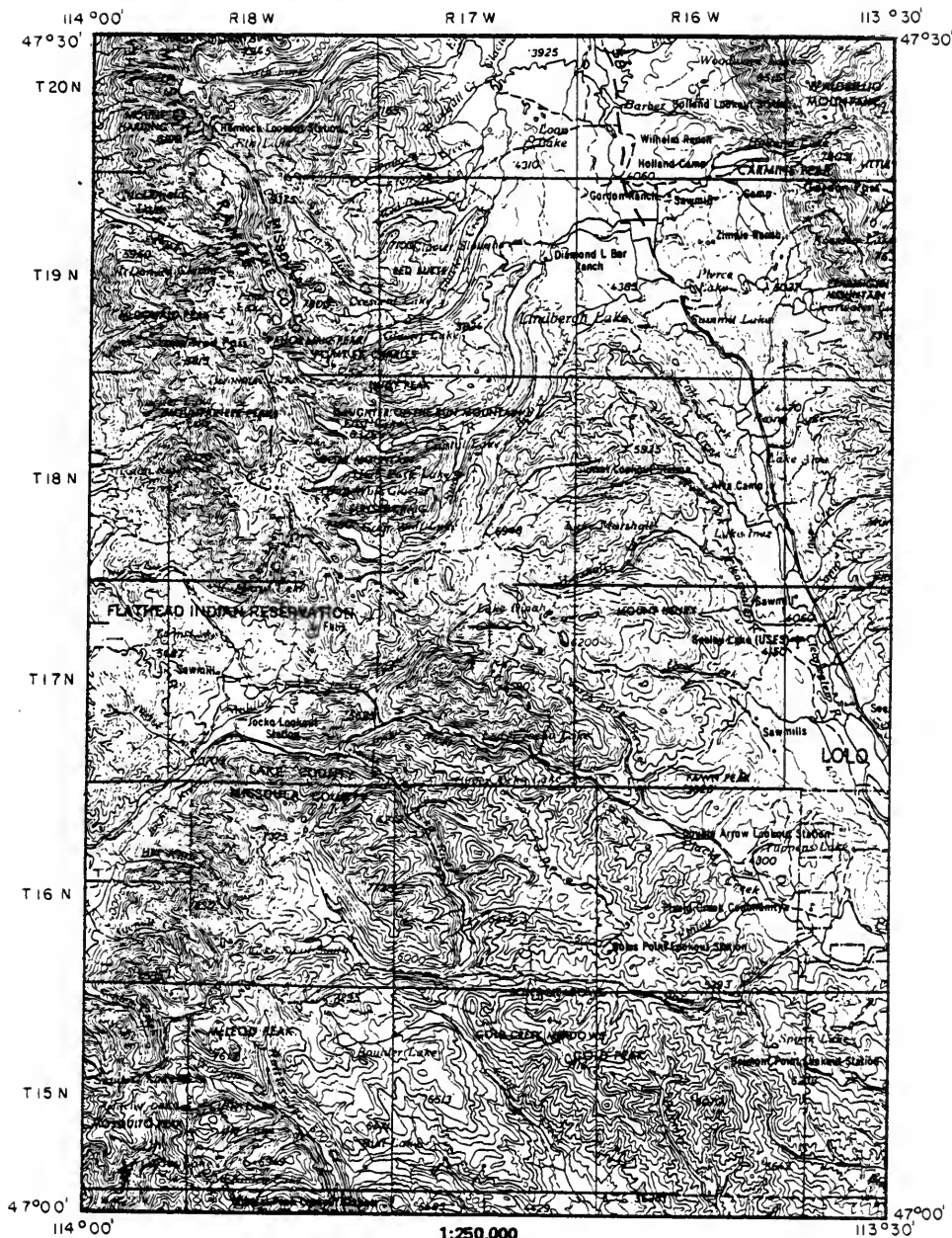


CONTOUR INTERVAL 100 FT

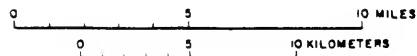


# SPECIFIC CONDUCTANCE SURVEY

CHOTEAU 5



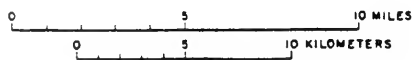
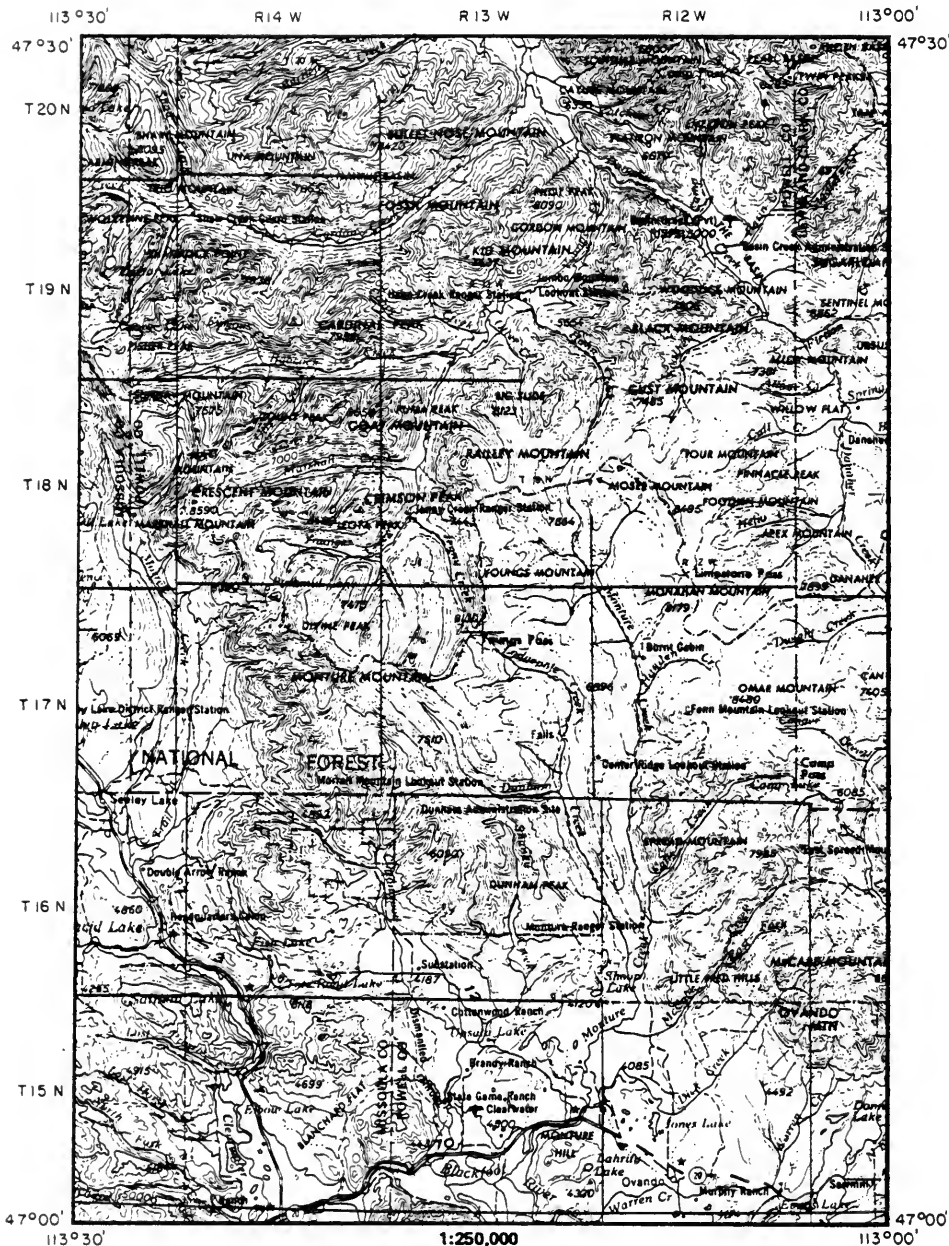
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CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

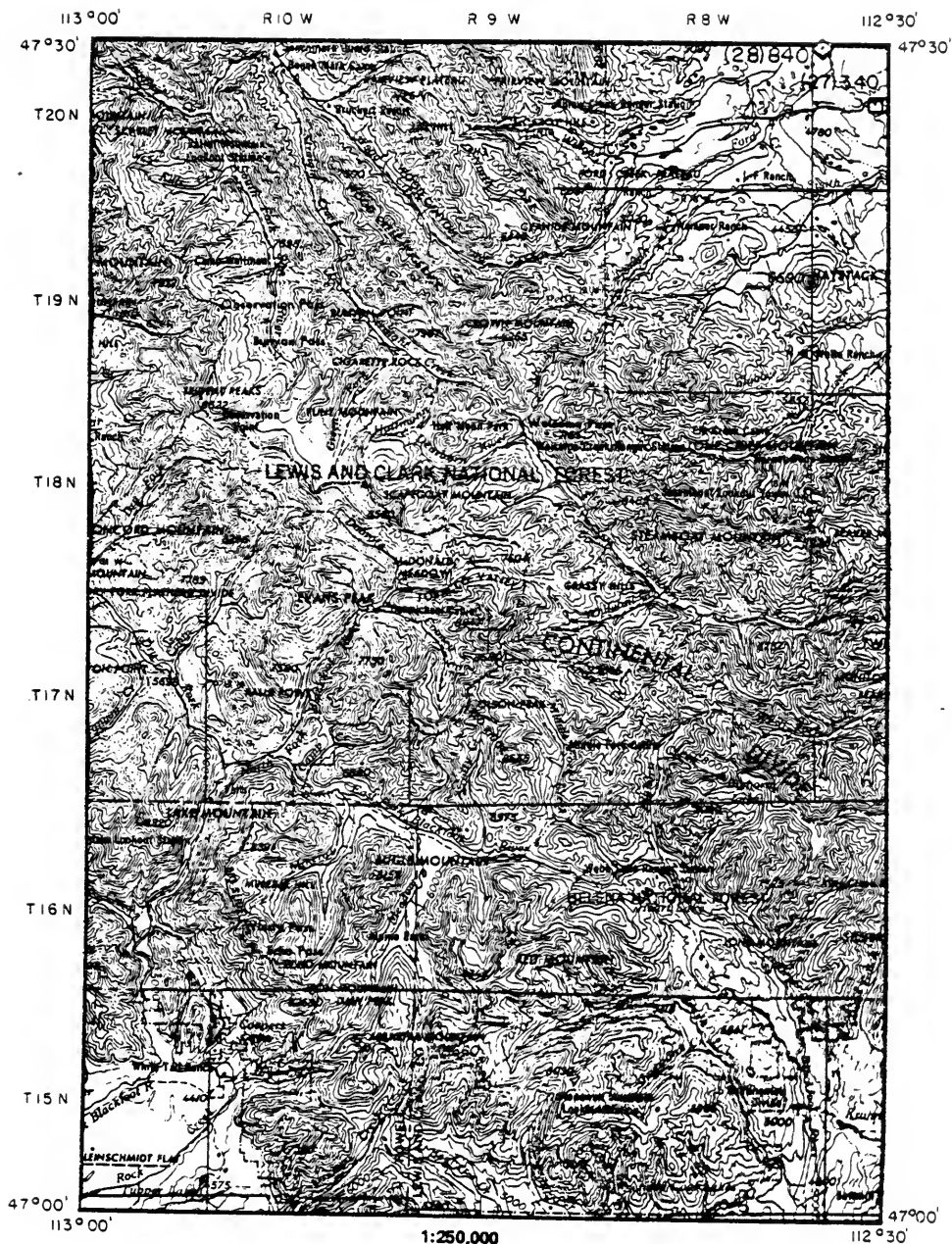
CHOTEAU 6



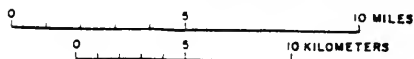
CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

CHQTEAU 7



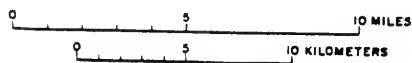
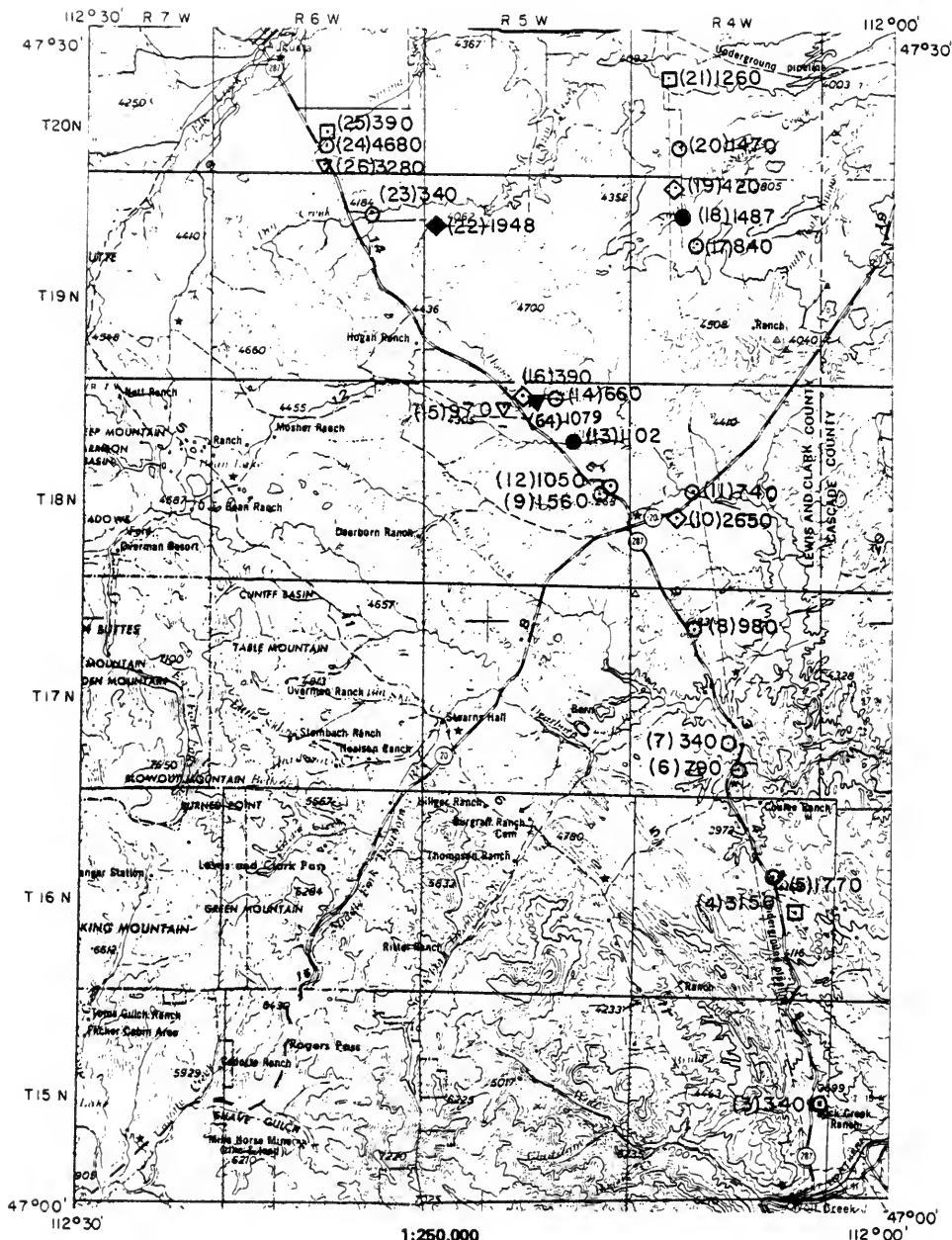
1:250,000



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

CHOTEAU 8



CONTOUR INTERVAL 100 FT

# CHOTEAU 1" x 2" Sheet Specific Conductivity Inventory Sheet

| Map<br>ref. | Field<br>number | County        | Location<br>T R Sec-3rd | Collection<br>Date<br>Mo Day Yr | Flow or yield<br>Estimate<br>M-gallons | Site description                                | Specific<br>conductivity<br>at 25°C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Well<br>level<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|-----------------|---------------|-------------------------|---------------------------------|--|---|-------------------------------------|----------------------|-----------------|-------------------|---------------------------------|-----------------|--------------|
| 1           | not on map      |               |                         |                                 |  |   |                                     |                      |                 |                   |                                 |                 |              |
| 2           | not on map      |               |                         |                                 |  |   |                                     |                      |                 |                   |                                 |                 |              |
| 3           | WOB1            | Lewis & Clark | 15N 04W 24 AB           | 04 06 78 Creek                  | 5 cfs (E)                              | Rock Creek at highway                           | 340                                 | no                   | no              |                   |                                 |                 |              |
| 4           | WOB2            | Lewis & Clark | 15N 04W 23 AD           | 04 06 78 Pond                   | no flow                                | Near road junction                              | 3150                                | no                   | no              |                   |                                 |                 |              |
| 5           | WOB11           | Lewis & Clark | 16N 04W 14 CAA          | 05 06 78 Creek                  | 1 cfs (E)                              | Kriley Creek at highway 287                     | 1770                                | no                   | no              |                   |                                 |                 |              |
| 6           | WOB2            | Lewis & Clark | 17N 04W 24 AC           | 04 05 78 Creek                  | low                                    | Quadrone Creek at highway                       | 790                                 | no                   | no              |                   |                                 |                 |              |
| 7           | WOB12           | Lewis & Clark | 17N 04W 23 BDD          | 04 05 78 River                  | 25 cfs (E)                             | Quadrone River at highway bridge                | 340                                 | no                   | no              |                   |                                 |                 |              |
| 8           | WOB12           | Lewis & Clark | 17N 04W 08 BB           | 05 06 78 Creek                  | 0.5 cfs (E)                            | Unnamed creek at highway 287                    | 980                                 | no                   | no              |                   |                                 |                 |              |
| 9           | WOB22           | Lewis & Clark | 18N 05W 24 B            | 11 20 78 Coulee                 | 25 gpm (E)                             | Draughts dryland farming area to the NE, alkali | 1560                                | no                   | no              |                   |                                 |                 |              |
| 10          | WOB21           | Lewis & Clark | 18N 04W 20 D            | 11 20 78 Spring                 |  | Emerges from dryland farming area to S          | 2660                                | no                   | no              |                   |                                 |                 |              |
| 11          | WOB20           | Lewis & Clark | 18N 04W 21 B            | 11 20 75 Creek                  | 1 cfs (E)                              | Flat Creek, mostly ringland                     | 740                                 | no                   | no              |                   |                                 |                 |              |
| 12          | WOB4            | Lewis & Clark | 18N 05W 24 BA           | 04 06 78 Creek                  | low                                    | Unnamed creek at highway                        | 1050                                | no                   | no              |                   |                                 |                 |              |
| 13          | WOB19           | Lewis & Clark | 18N 05W 11 CA           | 05 06 78 Creek                  | 2 cfs (E)                              | Flat Creek near Millard Colony                  | 1102                                | yes                  | yes             |                   |                                 |                 |              |
| 14          | WOB29           | Lewis & Clark | 18N 05W 03              | 11 20 75 Creek                  | 1 cfs (E)                              | Hogan Creek, several seeps feed this creek      | 1050                                | no                   | no              |                   |                                 |                 |              |
| 15          | WOB23           | Lewis & Clark | 18N 05W 04 CB           | 11 20 75 Drain                  |  | Sampled last year (1975)                        | 970                                 | no                   | no              |                   |                                 |                 |              |
| 16          | WOB28           | Lewis & Clark | 18N 05W 04              | 11 20 76 Spring                 |  | Spring fed, below large alkali seep area        | 390                                 | no                   | no              |                   |                                 |                 |              |
| 17          | WOB9            | Lewis & Clark | 18N 04W 05 CDC          | 04 06 78 Creek                  | low                                    | Subvent under road                              | 840                                 | no                   | no              |                   |                                 |                 |              |
| 18          | WOB8            | Lewis & Clark | 18N 04W 06 AA           | 04 06 78 Creek                  | 4 cfs (E)                              | Tributary to North Fork Simms Creek             | 1487                                | yes                  | yes             |                   |                                 |                 |              |
| 19          | WOB7            | Lewis & Clark | 18N 04W 05 AC           | 04 06 78 Spring                 | no flow                                |   | 420                                 | no                   | no              |                   |                                 |                 |              |
| 20          | WOB6            | Lewis & Clark | 20N 04W 22 AAA          | 04 06 78 Creek                  | low                                    | In field  | 1470                                | no                   | no              |                   |                                 |                 |              |
| 21          | WOB5            | Lewis & Clark | 20N 04W 20 AB           | 04 06 78 Pond                   | no flow                                | Seep  | 1260                                | yes                  | yes             |                   |                                 |                 | Keller, Gus  |
| 22          | WOB4            | Lewis & Clark | 18N 05W 07 CB           | 05 06 78 Spring                 | no flow                                | Just Keller seep                                | 1640                                | no                   | no              |                   |                                 |                 |              |
| 23          | WOB13           | Lewis & Clark | 20N 04W 21 AB           | 11 20 78 Spring                 | 0.5 cfs (E)                            | Draughts Creek at bridge                        | 340                                 | no                   | no              |                   |                                 |                 |              |
| 24          | WOB15           | Lewis & Clark | 20N 05W 21 AB           | 11 20 78 Creek                  | 0.5 cfs (E)                            | Spring Creek, alkali along slides               | 4680                                | no                   | no              |                   |                                 |                 |              |
| 25          | WOB15           | Lewis & Clark | 20N 05W 21 C            | 05 06 78 Pond                   | no flow                                | Adjacent to gravel pit                          | 390                                 | no                   | no              |                   |                                 |                 |              |
| 26          | WOB24           | Lewis & Clark | 20N 05W 34              | 11 20 78 Drain                  | 10 gpm (E)                             | Alkali along slides, dryland farming area       | 3280                                | no                   | no              |                   |                                 |                 |              |
| 27          | WOB18           | Lewis & Clark | 20N 07W 20 AD           | 06 06 78 Reservoir              |  | Niles Reservoir at dam                          | 340                                 | no                   | no              |                   |                                 |                 |              |
| 28          | WOB28           | Lewis & Clark | 20N 07W 07              | 11 20 76 Spring                 | 10 gpm (E)                             | Ringland with much alkali                       | 840                                 | no                   | no              |                   |                                 |                 |              |
| 29          | WOB25           | Lewis & Clark | 21N 07W 28              | 05 06 78 Creek                  | 3 cfs (E)                              | Willow Creek, irrigated area with alkali        | 680                                 | no                   | no              |                   |                                 |                 |              |
| 30          | WOB16           | Lewis & Clark | 21N 05W 19 OA           | 05 06 75 Canal                  | 50 cfs (E)                             | Flowers Canal at bridge                         | 600                                 | no                   | no              |                   |                                 |                 |              |

**CHOTEAU 1" x 2" Sheet (Cont.)**  
**Specific Conductivity Inventory Sheet (Cont.)**

| Map<br>ref. | Field<br>no. | County        | Location<br>T R Sec | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E=estimated<br>M=measured | Site description                               | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|--------------|---------------|---------------------|---------------------------------|--|--|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 31          | WB017        | Lewis & Clark | 21N 09W 28 8B       | 05 05 78                        | Creek<br>1 cfs (E)                         | Willow Creek at Culvert                        | 1080                                 | no                   | no              | 4280              |                                   |                        |                 | Harris       |
| 32          | MBMG90       | Teton         | 21N 09W 21          | 06 28 78                        | Well                                       | Domestic use                                   | 500                                  | 22                   | no              | 4300              |                                   | 58                     |                 | Allen        |
| 33          | MBMG91       | Teton         | 21N 09W 11 CBC      | 06 28 78                        | Well                                       | Domestic use, good water                       | 560                                  | 12                   | no              | 4500              |                                   | 104                    |                 | Neckstad     |
| 34          | MBMG97       | Teton         | 22N 09W 29          | 06 28 78                        | Well                                       | Domestic use                                   | 780                                  | 18                   | no              | 4500              |                                   |                        |                 |              |
| 35          | MBMG100      | Teton         | 22N 34W 06          | 06 28 78                        | Lake                                       | Freezout Lake                                  | 2140                                 | 24                   | no              |                   |                                   |                        |                 |              |
| 36          | MBMG57       | Teton         | 23N 04W 30          | 06 28 78                        | Well                                       | Domestic use                                   | 800                                  | 12.8                 | no              | 3840              | 35                                | 65                     |                 | Lear, Jack   |
| 37          | MBMG96       | Teton         | 22N 09W 27 CAD      | 06 28 78                        | Well                                       | Stock use                                      | 1000                                 | 16                   | no              | 4420              | 35                                | 85                     |                 | Neckstad     |
| 38          | MBMG95       | Teton         | 23N 09W 02 AAA      | 06 28 78                        | Creek                                      | Deep Creek                                     | 350                                  | 17                   | no              | 3800              |                                   |                        |                 |              |
| 39          | MBMG94       | Teton         | 23N 09W 02 BAB      | 06 28 78                        | Creek                                      | Tributary to Willow Creek                      | 1100                                 | 18                   | no              |                   |                                   |                        |                 |              |
| 41          | MBMG83       | Teton         | 24N 09W 31          | 06 28 78                        | Pond                                       |  | 510                                  | 19                   | no              | 4430              |                                   |                        |                 |              |
| 42          | MBMG92       | Teton         | 24N 07W 21 8DA      | 06 28 78                        | Creek                                      | Willow Creek                                   | 340                                  | 17                   | no              | 4620              |                                   |                        |                 | Dixon        |
| 43          | MBMG12       | Teton         | 25N 07W 28 ACD      | 06 25 78                        | Well                                       | Domestic use                                   | 350                                  | 13                   | no              | 4280              |                                   | 30                     | 112THRC         | Cery         |
| 44          | MBMG11       | Teton         | 26N 09W 30 DBD      | 01 18 77                        | Well                                       | Domestic use                                   | 474                                  | 13                   | yes             | 4280              |                                   | 20                     | 112THRC         | Page, Roy    |
| 45          | MBMG36       | Teton         | 26N 09W 24 DDC      | 06 27 78                        | Well                                       | Stock use                                      | 470                                  | 11                   | no              | 3880              | 11                                | 16                     |                 |              |
| 46          | MBMG10       | Teton         | 25N 09W 22 BCAA     | 06 25 78                        | Well                                       | Domestic use, some iron stain                  | 450                                  | 14                   | no              | 4180              |                                   | 25                     |                 |              |
| 47          | MBMG38       | Teton         | 26N 09W 30 BCC      | 06 25 78                        | Reservoir                                  | Eureka Reservoir                               | 240                                  | 19                   | no              | 4120              |                                   |                        |                 |              |
| 48          | MBMG37       | Teton         | 26N 09W 30 BCC      | 06 25 78                        | Well                                       | Stock use                                      | 450                                  | 15                   | no              | 4120              |                                   | 4                      | 8               |              |
| 49          | MBMG35       | Teton         | 26N 09W 24 DDC      | 06 27 78                        | Well                                       | Domestic use                                   | 680                                  | 16                   | no              | 3980              |                                   | 15                     | 58              |              |
| 50          | MBMG31       | Teton         | 25N 09W 04 DD       | 06 26 78                        | Well                                       | Domestic use, good water but a little hard     | 430                                  | 11                   | no              | 3840              |                                   |                        |                 |              |
| 51          | MBMG30       | Teton         | 26N 09W 24 DDD      | 01 17 77                        | Well                                       | Domestic use, some iron [?] stain              | 482                                  | 13                   | yes             | 3890              | 18                                | 32                     | 110THRC         |              |
| 52          | MBMG32       | Teton         | 26N 04W 06          | 06 28 78                        | Well                                       | Domestic use, good water                       | 480                                  | 12                   | no              | 3820              | 27                                | 30                     |                 |              |
| 53          | MBMG41       | Teton         | 26N 04W 06 C89      | 06 27 78                        | Well                                       | Domestic use                                   | 2720                                 | 13                   | no              | 3780              | 48                                | 56                     |                 |              |
| 54          | not on map   |               |                     |                                 |  |  |                                      |                      |                 |                   |                                   |                        |                 |              |
| 55          | MBMG24       | Teton         | 26N 09W 12 DADD     | 10 12 76                        | Well                                       | Domestic use, iron stain, well pumps some sand | 1002                                 | 12                   | yes             | 3760              | 15                                | 82                     | 1120TSH         |              |
| 56          | MBMG34       | Teton         | 25N 04W 25          | 06 27 78                        | Well                                       | Domestic use                                   | 350                                  | 15                   | no              | 3820              |                                   | 1                      |                 |              |
| 57          | MBMG43       | Teton         | 24N 09W 08 C88      | 01 18 77                        | Well                                       | Domestic use, water forms calcium deposits     | 864                                  | 16                   | yes             | 3880              | 10                                | 150                    | 211CLRD         |              |
| 58          | MBMG42       | Teton         | 26N 04W 28 BCC      | 06 27 78                        | Well                                       | Domestic use                                   | 680                                  | 10                   | no              | 3720              |                                   |                        |                 |              |
| 59          | MBMG63       | Teton         | 24N 04W 11 DCCC     | 06 27 78                        | Well                                       | Domestic use                                   | 1530                                 | 17.5                 | no              | 3760              | 30                                | 46                     |                 |              |
| 60          | MBMG44       | Teton         | 24N 04W 28 ABA      | 06 27 78                        | River                                      | Teton River                                    | 780                                  | 13                   | no              | 3680              |                                   |                        |                 |              |

## CHOTEAU 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no. | County        | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>E=estimated<br>M=measured | Site description                       | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name   |
|-------------|--------------|---------------|---------------------------|---------------------------------|--------|--|--|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|----------------|
| 51          | MBMG45       | Teton         | 24N 04W 24 DBD            | 06 27 76                        | Well   |  | Domestic use located along Teton River | 1310                                 | 15                   | no              | 3660              |                                   | 15                     |                 | Ferris, James  |
| 62          | MBMG38       | Teton         | 21N 04W 17 AAA            | 06 28 76                        | Well   |  | Domestic use                           | 1200                                 | 14                   | no              | 4160              | 4                                 | 16                     |                 | Erickson       |
| 53          | MBMG37       | Teton         | 21N 04W 14 CDA            | 06 28 76                        | Well   |  | Domestic use                           | 1200                                 | 10                   | no              | 3980              |                                   | 64                     |                 | Sanley         |
| 64          | WBG52        | Lewis & Clark | 18N 03W 03 CB             | 11 20 75                        | Drain  | 10 gpm (E)                                 | Lewis & Clark Number 1 drain           | 1078                                 | 10                   | yes             |                   |                                   |                        |                 |                |
| 65          | MBMG20       | Teton         | 26N 03W 31 CCCB           | 06 25 76                        | Creek  | 10 cfs                                     | Muddy Creek                            | 650                                  | 17                   | no              | 3740              |                                   |                        |                 |                |
| 66          | MBMG34       | Teton         | 26N 03W 18 DCC            | 06 27 76                        | Well   | 15 gpm                                     |  | 660                                  | 14.5                 | no              | 3680              | 20                                | 90                     |                 | Milford Colony |
| 67          | MBMG58       | Teton         | 23N 03W 33 BBA            | 06 27 76                        | Pond   |  |  | 19500                                | 18.5                 | no              |                   |                                   |                        |                 |                |
| 68          | 75M1942      | Lake          | 24N 18W 03                | 06 20 77                        | Creek  |  | Pocahontas Creek above Gildart Creek   | 222                                  | 8.5                  | yes             |                   |                                   |                        |                 |                |
| 69          | 75M1941      | Lake          | 26N 17W 31                | 06 20 77                        | Creek  |  | North Fork Lost Creek                  | 223                                  | 6.0                  | yes             |                   |                                   |                        |                 |                |
| 70          | 76M1619      | Teton         | 26N 04W 36 DCD19          | 01 17 72                        | Well   | 1.4 gpm (M)                                |  | 646                                  | 8.5                  | yes             | 3770              | 9                                 | 107                    |                 | Winst. E       |

## CHOTEAU

## Chemical Analyses

| Map<br>ref.<br>no. | T   | R   | Sec | Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Mange-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|-----|-----|-----|-------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 13                 | 18N | 05W | 11  | CA    | 05 06 78                        | Creek  | 84              | 16                     | 131            | 12                    |              |                        |                               | 343                                     |                                      | 18               | 220                           |
| 18                 | 19N | 04W | 08  | AA    | 04 06 76                        | Creek  | 57              | 26.2                   | 250            | 3.3                   |              |                        |                               | 459                                     | 17                                   | 22               | 330                           |
| 22                 | 19N | 06W | 07  | CB    | 05 06 76                        | Spring | 196             | 38.8                   | 150            | 27                    |              |                        |                               | 350                                     |                                      | 12.6             | 686                           |
| 44                 | 25N | 06W | 30  | DBD   | 01 18 77                        | Well   | 68.8            | 21                     | 3.2            | .5                    | <.01         | <.01                   | 6.8                           | 273                                     |                                      | 17               | 14.7                          |
| 51                 | 25N | 05W | 24  | DDDD  | 01 17 77                        | Well   | 22.5            | 47                     | 13.8           | .6                    | <.01         | <.01                   | 8.3                           | 268                                     |                                      | 3.4              | 46.2                          |
| 55                 | 25N | 04W | 12  | DADD  | 10 13 76                        | Well   | 39              | 32.5                   | 144            | 2.2                   | .86          | .21                    | 7.1                           | 498                                     |                                      | 56.4             | 84.3                          |
| 57                 | 24N | 04W | 08  | CB8   | 01 18 77                        | Well   | 32.5            | 89                     | 31.9           | 1.0                   | <.01         | <.01                   | 11.9                          | 498                                     |                                      | 24.4             | 52                            |
| 64                 | 18N | 06W | 03  | CB    | 11 20 75                        | Drain  | 61              | 54                     | 85             | 4.8                   |              |                        |                               | 366                                     |                                      | 19               | 180                           |
| 68                 | 24N | 18W | 03  |       | 05 20 77                        | Creek  | 35.4            | 6.7                    | .7             | 1.0                   | <.01         | <.01                   | 6.5                           | 142                                     |                                      | .1               | 1.7                           |
| 69                 | 25N | 17W | 31  |       | 05 20 77                        | Creek  | 36              | 7.8                    | .6             | .3                    | .04          | <.01                   | 3.9                           | 140                                     | 1                                    | .2               | 3.0                           |
| 70                 | 26N | 04W | 36  | DCDB  | 01 17 77                        | Well   | 43.6            | 23                     | 71.5           | 1.9                   | .01          | .12                    | 8.1                           | 346                                     |                                      | 9.6              | 56.8                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium



1° x 2° Sheet

## of Selected Waters

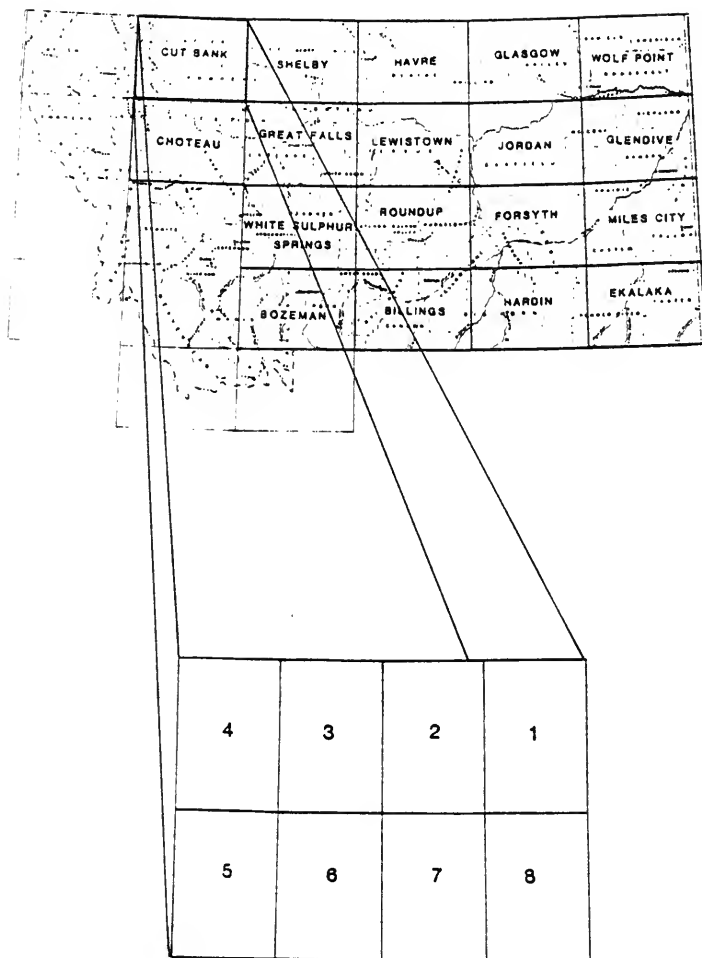
| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Field<br>Lab<br>pH | Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|--------------------|-------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 13                 | 8.9            |                 | 8.1                | 18          | 1102  |                                | 275                                       | 281   | 3.4                           | WQB                  |                        |                 | no                            | 76W0681       |
| 18                 |                |                 | 8.74               | 8           | 1487  | 1164                           | 250                                       | 404   | 6.9                           | WQB                  |                        |                 | no                            | 76W0564       |
| 22                 | .41            |                 | 7.8                | 12          | 1948  |                                | 860                                       | 287   | 2.6                           | WQB                  |                        |                 | no                            | 76W0880       |
| 44                 | .115           | .3              | 7.9                | 13          | 474   | 265                            | 258                                       | 224   | .1                            | MBMG                 | 20                     | 110TRRC         | yes                           | 76M1625       |
| 51                 | 2.87           | .6              | 8.17               | 13          | 462   | 276                            | 250                                       | 220   | .4                            | MBMG                 | 32                     | 110TRRC         | yes                           | 76M1621       |
| 55                 | <.02           | .9              | 7.74               |             | 1002  | 597                            | 231                                       | 382   | 4.1                           | MBMG                 | 82                     | 112OTSH         | yes                           | 76M1344       |
| 57                 | 2.35           | .4              | 8.09               | 16          | 864   | 491                            | 447                                       | 408   | .7                            | MBMG                 | 150                    | 211CLRD         | yes                           | 76M1622       |
| 64                 | 13             |                 | 7.89               |             | 1079  | 783                            | 374                                       | 300   | 1.9                           | WQB                  |                        |                 | no                            | 76W2296       |
| 98                 | .06            | <.1             | 8.23               | 6.5         | 222   | 122                            | 116                                       | 116   |                               | USFS                 |                        |                 | no                            | 76M1942       |
| 99                 | .280           | <.1             | 8.34               | 6           | 223   | 121                            | 119                                       | 117   |                               | USFS                 |                        |                 | no                            | 76M1941       |
| 70                 | .038           | .7              | 8.04               | 9.5         | 646   | 386                            | 204                                       | 284   | 2.2                           | MBMG                 | 107                    | 112OTSH         | yes                           | 76M1619       |

## CHOTEAU 1° x 2° Sheet

## Trace Elements Analysis Sheet

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Alu-<br>minum<br>(mg/l) | Ant.<br>mony<br>(mg/l) | Ar.<br>Beryl-<br>lum<br>(µg/l) | Boron<br>(mg/l) | Cad-<br>mium<br>(mg/l) | Chro-<br>mium<br>(mg/l) | Cop-<br>per<br>(mg/l) | Lead<br>(mg/l) | Lith-<br>ium<br>(mg/l) | Nickel<br>(mg/l) | Phosphate<br>(Total<br>dissolved)<br>(µg/l) | Silver<br>(mg/l) | Selen-<br>ium<br>(mg/l) | Iron<br>(mg/l) | Tin<br>(mg/l) | Zinc<br>(mg/l) | Lab.<br>number |
|--------------------|---------------------------|-------------------------|------------------------|--------------------------------|-----------------|------------------------|-------------------------|-----------------------|----------------|------------------------|------------------|---|------------------|-------------------------|----------------|---------------|----------------|----------------|
| 44                 | 25W 08W 30 DBD            | <.05                    | <.2                    | <.2                            | .04             | <.01                   | <.03                    | <.05                  | .01            | <.3                    | <.01             | .078  | <.2              | <.2                     | .30            | <.05          | .06            | 7641625        |
| 61                 | 25W 05W 24 CDD            | <.05                    | <.2                    | <.2                            | .06             | <.01                   | <.01                    | <.05                  | .04            | .01                    | .01              | .026  | 24.5             | <.2                     | .46            | <.05          | .12            | 7641621        |
| 65                 | 25W 04W 12 DADD           | .13                     | <.2                    | <.2                            | <.6             | <.01                   | <.02                    | <.05                  | .06            | <.3                    | .01              | .059  | <.2              | <.2                     | .99            | .05           | .34            | 7641622        |
| 67                 | 24N 04W 08 CB8            | <.05                    | <.2                    | <.2                            | .16             | <.01                   | <.01                    | <.05                  | .02            | <.3                    | <.01             | .028  | 2                | <.2                     | .48            | <.05          | <.21           | 7641619        |
| 70                 | 26N 04W 36 DCD8           | <.05                    | <.2                    | <.2                            | .12             | <.01                   | <.01                    | <.05                  | .02            | <.3                    | <.01             | .028  | 2                | <.2                     | .48            | <.05          | <.21           | 7641619        |

# LOCATION BASE MAP

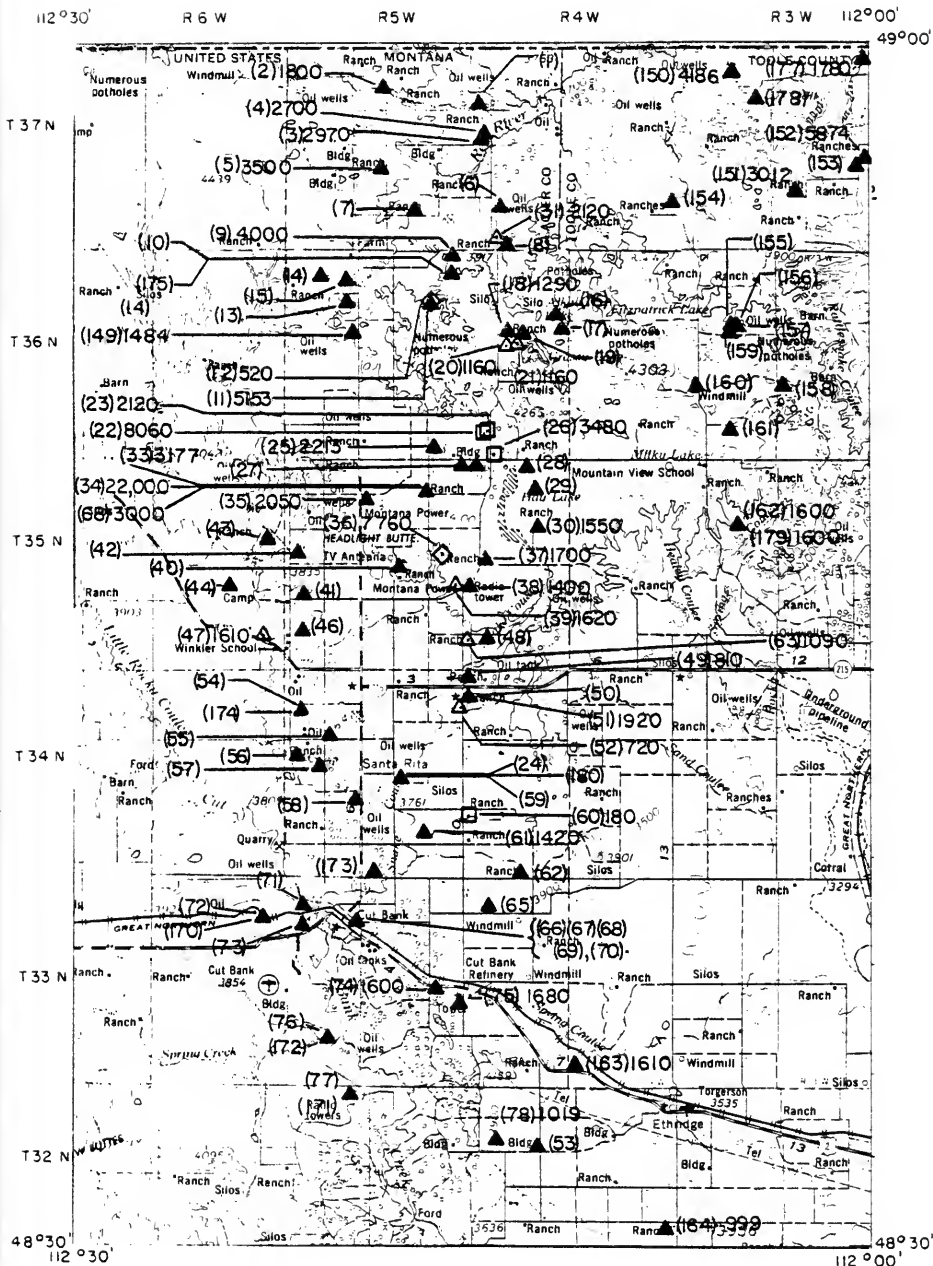


CUT BANK 1° x 2° SHEET



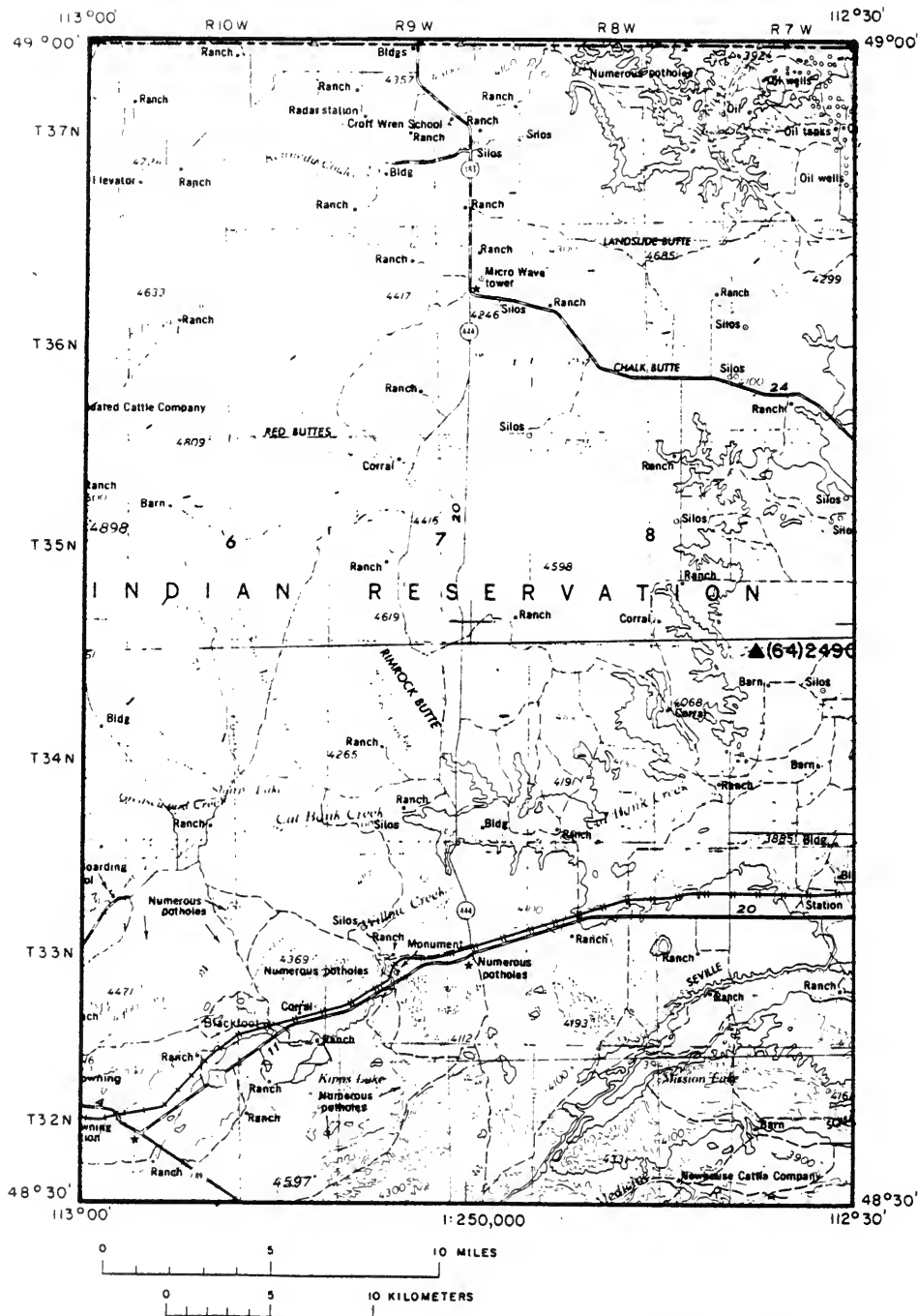
SPECIFIC CONDUCTANCE SURVEY

CUT BANK 1



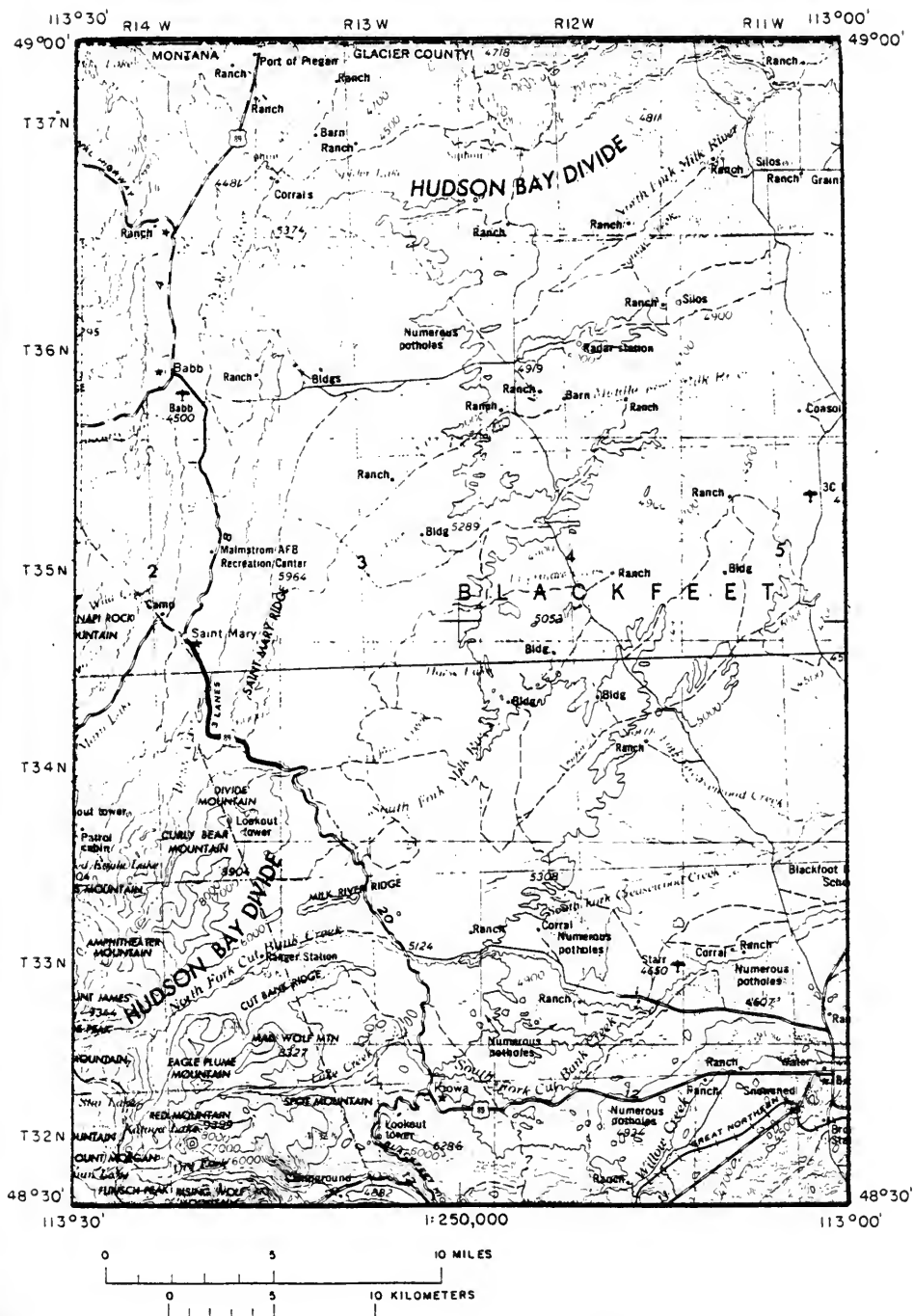
# SPECIFIC CONDUCTANCE SURVEY

CUT BANK 2



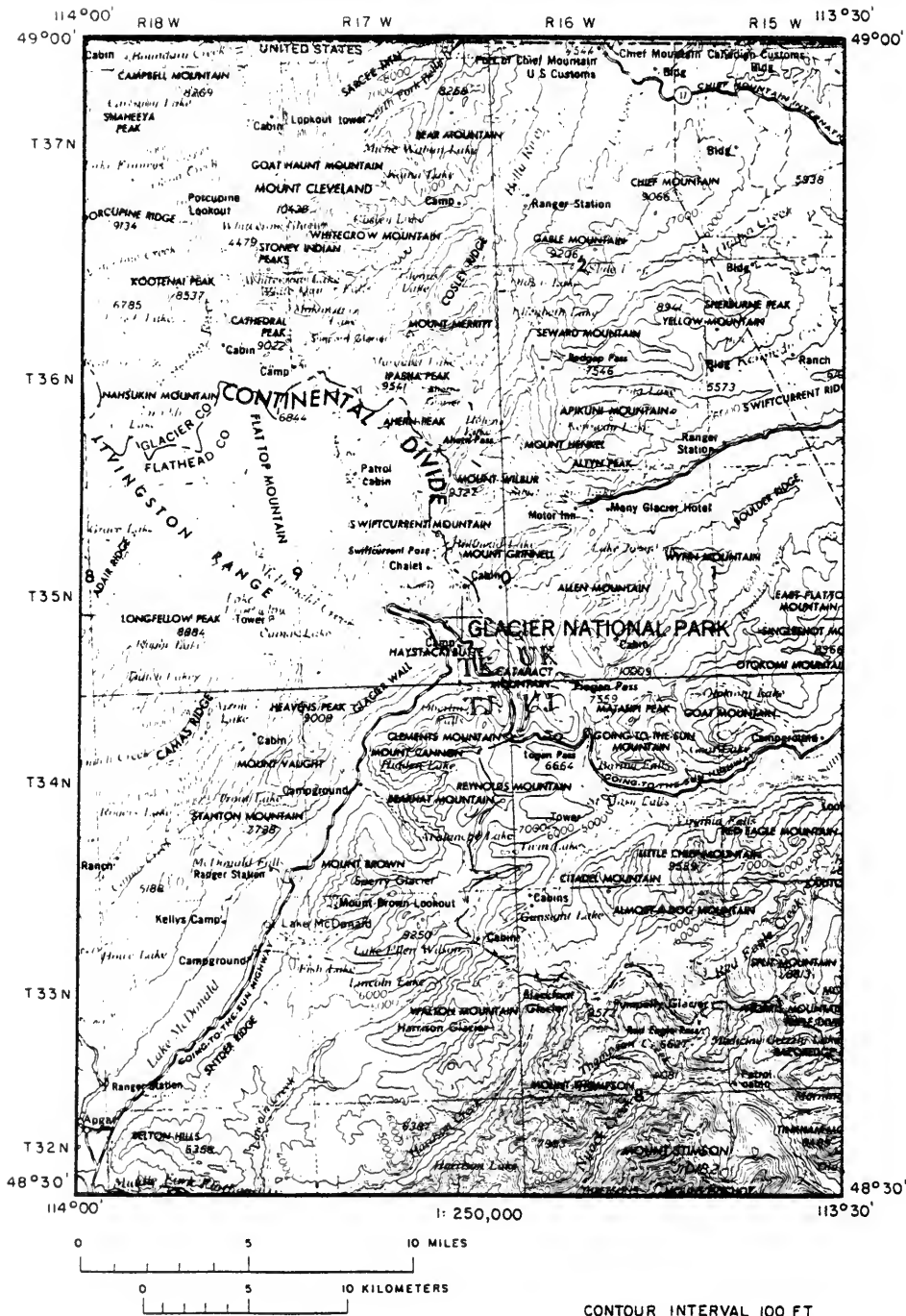
SPECIFIC CONDUCTANCE SURVEY

CUT BANK 3



CONTOUR INTERVAL 100 FT

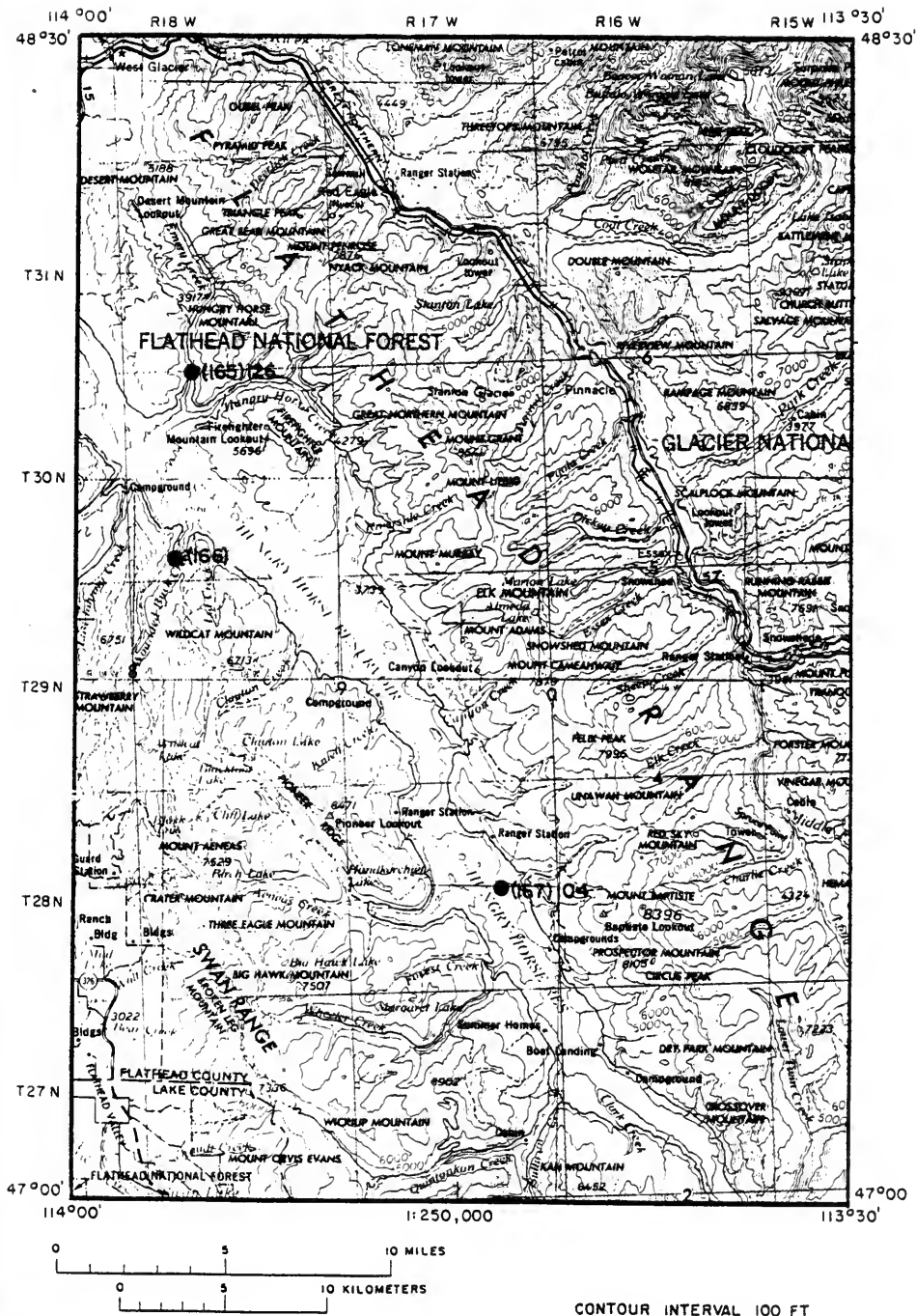
## CUT BANK 4





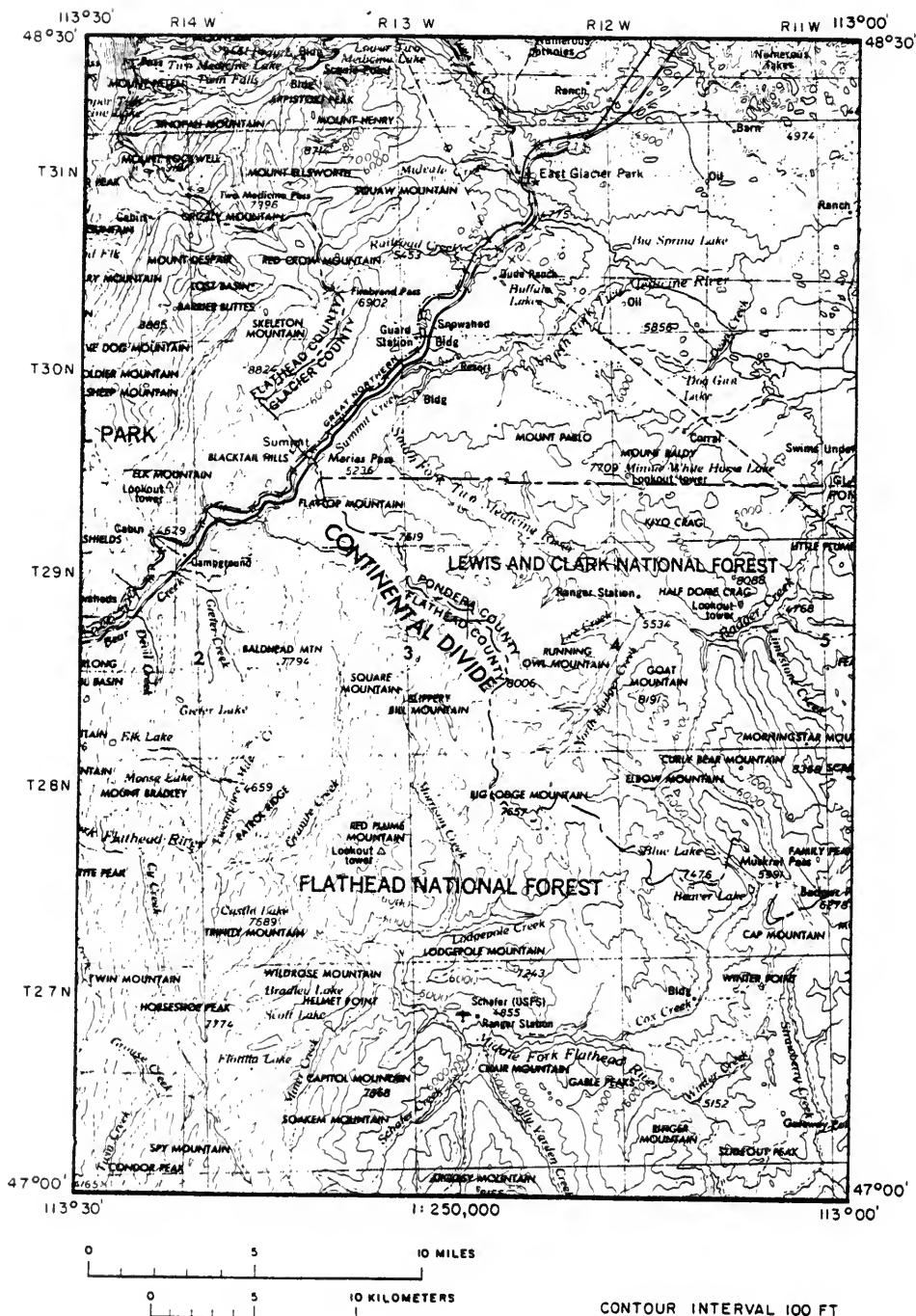
SPECIFIC CONDUCTANCE SURVEY

CUT BANK 5



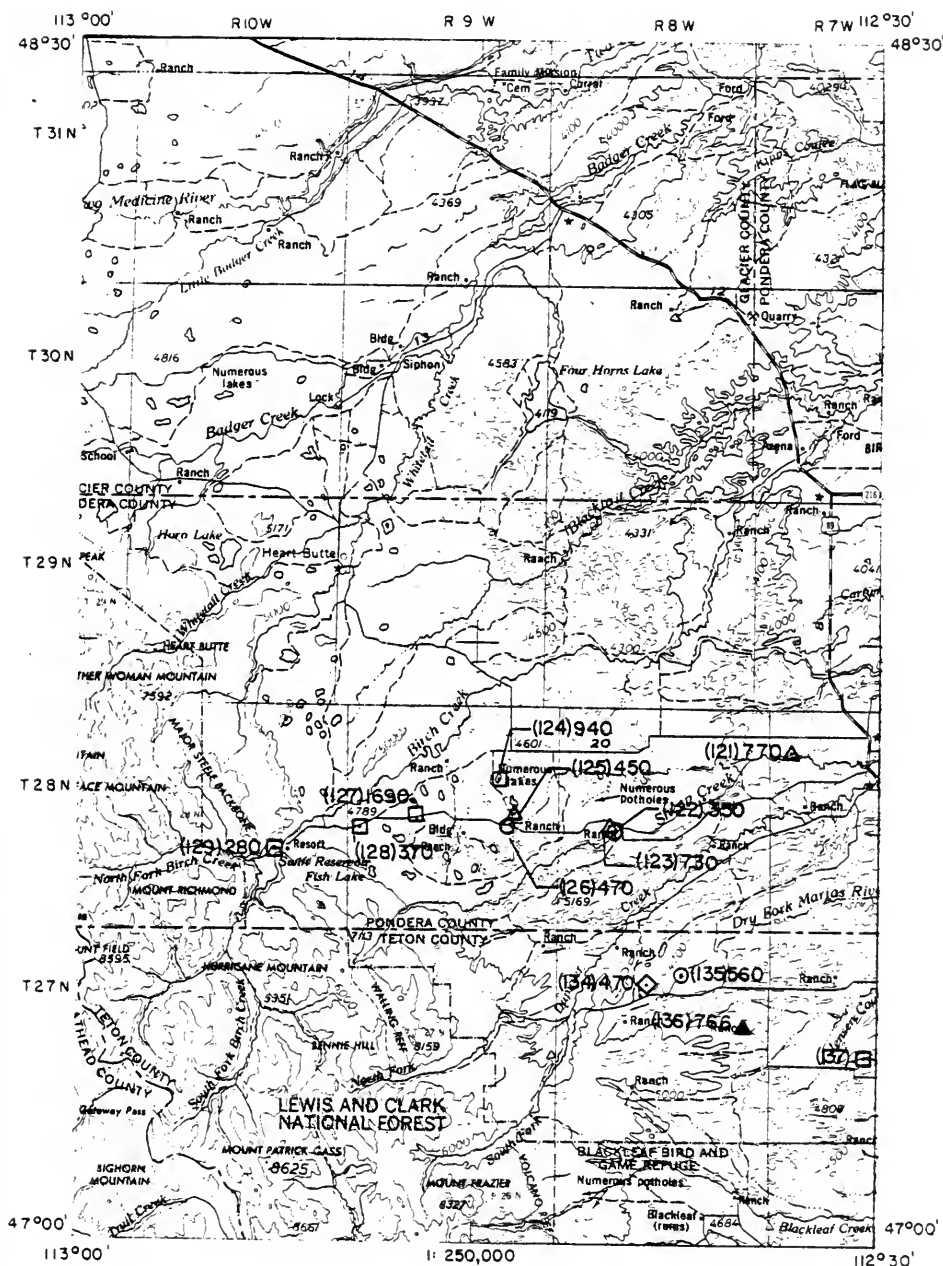
SPECIFIC CONDUCTANCE SURVEY

CUT BANK 6



# SPECIFIC CONDUCTANCE SURVEY

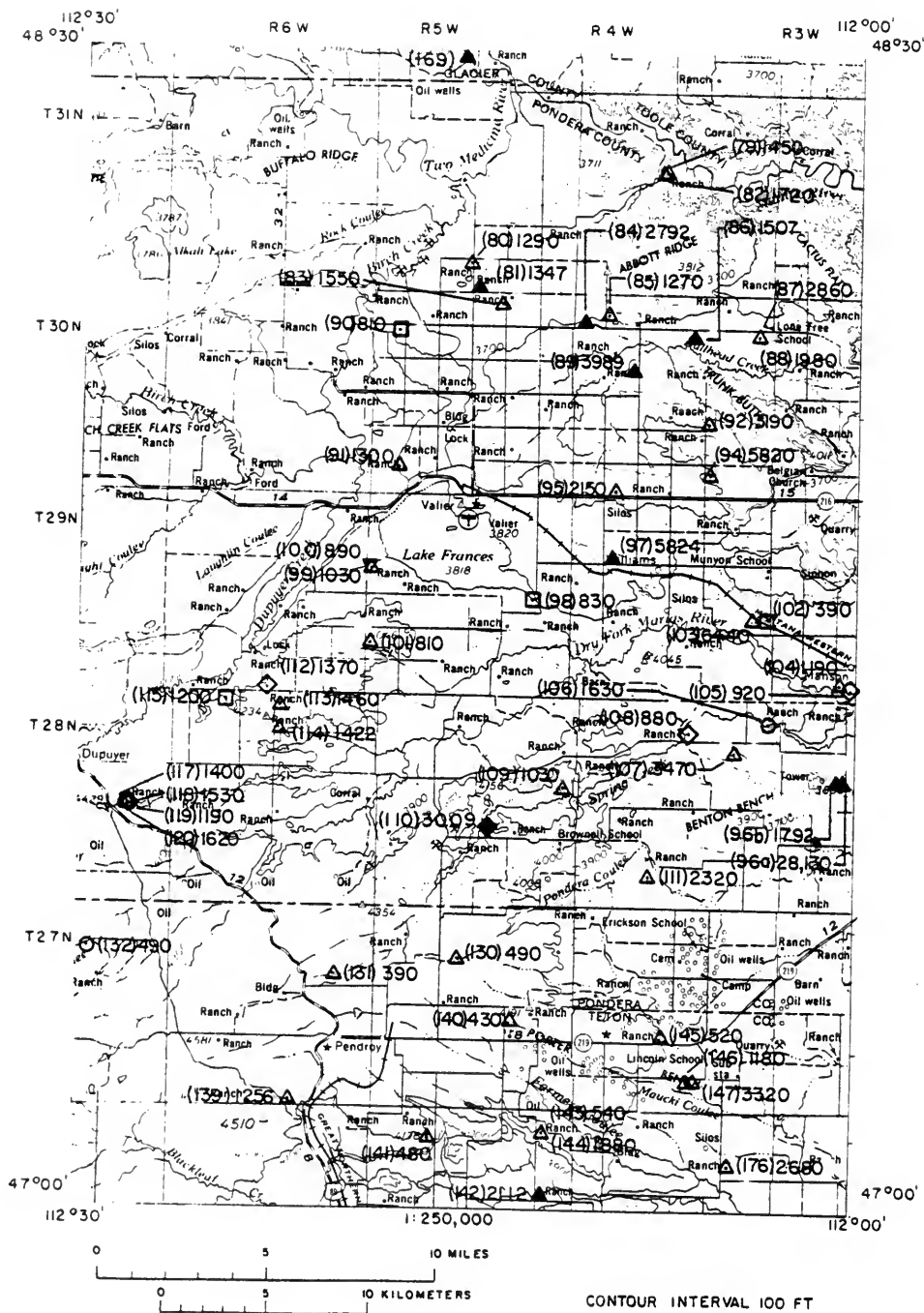
CUT BANK 7



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

CUT BANK 8



**CUT BANK 1" x 2" Sheet**  
**Specific Conductivity Inventory Sheet**

| Map<br>ref.<br>no. | Field<br>number | County  | Location |     | Collection<br>date | Flow or yield |     | Site description | Specific<br>conductivity<br>at 25 °C | temp<br>°C | Lab<br>analysis | Altitude<br>ft. | water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name      |
|--------------------|-----------------|---------|----------|-----|--------------------|---------------|-----|------------------|--------------------------------------|------------|-----------------|-----------------|-----------------------|----------------------|-----------------|-------------------|
|                    |                 |         | T        | R   |                    | Sic           | Twp |                  |                                      |            |                 |                 |                       |                      |                 |                   |
| 1                  | 49M0001         | Glacier | 37N      | 05W | 10 DC              | 01            | 21  | 48 Well          | 22 gpm (E)                           |            |                 | 3770            | 125                   | 142                  | 211VRL          | Swenson, Ralph    |
| 2                  | 65M0029         | Glacier | 37N      | 05W | 07 AD              | 10            | 19  | 65 Well          |                                      | 1800       | yes             | 4010            | 26                    | 180                  | 211TMD          | Loring, Jacob     |
| 3                  | 37M0019         | Glacier | 37N      | 05W | 15 DDA             | 10            | 18  | 65 Well          |                                      | 2970       | no              | 3750            | 133                   | 133                  | 211VRL          | Kruger, R.        |
| 4                  | 65M0016         | Glacier | 37N      | 05W | 15 DA              | 10            | 18  | 65 Well          | 7 gpm (E)                            | 2700       | yes             | 4010            | 73                    | 133                  | 211TMD          | Loring, William   |
| 5                  | 65M0028         | Glacier | 37N      | 05W | 19 DA              | 10            | 19  | 65 Well          |                                      | 3500       | yes             | 4010            |                       |                      |                 |                   |
| 6                  | 65M0019         | Glacier | 37N      | 05W | 26 CB              | 10            | 18  | 65 Well          | 15 gpm (E)                           |            | yes             | 3840            | 171                   | 172                  | 211VRL          | Bunyak, W.        |
| 7                  | 65M0027         | Glacier | 37N      | 05W | 28 DD              | 10            | 18  | 65 Well          |                                      |            | yes             | 3870            | 42                    | 211TMD               | Jackson, Rufina |                   |
| 8                  | 65M0018         | Glacier | 37N      | 05W | 28 CD              | 10            | 15  | 65 Well          |                                      |            | yes             | 3860            | 145                   | 185                  | 211VRL          | Barham, E.        |
| 9                  | 65M0022         | Glacier | 36N      | 05W | 04 AB              | 10            | 15  | 65 Well          |                                      | 4000       | yes             | 3910            | 124                   | 211TMD               | Bliss, G.       |                   |
| 10                 | 40M0001         | Glacier | 36N      | 05W | 04 DB              | 02            | 14  | 40 Well          |                                      |            | yes             | 3970            |                       |                      | 211TMD          |                   |
| 11                 | MBMG17          | Glacier | 36N      | 05W | 08 BC              | 12            | 02  | 78 Well          |                                      | 5153       | 8               | 3950            |                       | 130                  | 211TMD          | Bedard, W.        |
| 12                 | MBMG16          | Glacier | 36N      | 05W | 09 BC              | 08            | 25  | 76 Spring        |                                      | 520        | 22              | 3950            |                       |                      |                 | Bedard            |
| 13                 | 47M0012         | Glacier | 36N      | 05W | 12 AC              | 03            | 18  | 47 Well          |                                      |            | yes             | 4130            |                       |                      | 211VLC          |                   |
| 14                 | 33M0004         | Glacier | 36N      | 05W | 02 DA              | 02            | 23  | 33 Well          |                                      |            | yes             | 4500            | 218                   | 475                  | 211VRL          | Town of Sunburst  |
| 15                 | 54M0006         | Glacier | 36N      | 05W | 01 DC              | 03            | 18  | 64 Well          | 250 gpm (E)                          |            | yes             | 4050            |                       |                      |                 |                   |
| 16                 | 54M0004         | Glacier | 36N      | 05W | 12 DC              | 05            | 21  | 64 Well          | 85 gpm (E)                           |            | yes             | 4080            | 90                    | 407                  | 211VRL          | Town of Sunburst  |
| 17                 | 54M0003         | Glacier | 36N      | 05W | 13 AA              | 06            | 21  | 64 Well          | 125 gpm (E)                          |            | yes             | 4090            | 299                   | 520                  | 211VRL          | Town of Sunburst  |
| 18                 | 64M0008         | Glacier | 36N      | 05W | 14 BD              | 10            | 24  | 64 Well          |                                      | 1290       | yes             | 4000            | 8                     | 211TMD               | Garrison, G.    |                   |
| 19                 | 65M0017         | Glacier | 36N      | 05W | 14 AC              | 09            | 24  | 65 Well          | 5 gpm (E)                            | 8.9        | yes             | 3980            | 12                    | 450                  | 211VRL          | Garrison, George  |
| 20                 | MBMG14          | Glacier | 36N      | 05W | 14 CAAA            | 08            | 25  | 76 Well          |                                      | 1160       | 18              | 4020            |                       | 150                  |                 | Hulverson, B.     |
| 21                 | MBMG15          | Glacier | 36N      | 05W | 14 DBB             | 08            | 25  | 78 Well          |                                      | 1160       | 9               | 4020            |                       | 400                  |                 | Hulverson, B.     |
| 22                 | MBMG12          | Glacier | 36N      | 05W | 34 ACBA            | 08            | 25  | 78 Reservoir     |                                      | 8060       | 21              | 4040            |                       |                      |                 |                   |
| 23                 | MBMG13          | Glacier | 36N      | 05W | 34 ACAC            | 08            | 25  | 76 Reservoir     |                                      | 2120       | 24              | 4040            |                       |                      |                 |                   |
| 24                 | 65M0010         | Glacier | 36N      | 05W | 20 BB              | 10            | 08  | 65 Well          |                                      |            | yes             | 4120            | 30                    | 130                  | 211VRL          | Rios, G.          |
| 25                 | MBMG10          | Glacier | 36N      | 05W | 33 CBBC            | 12            | 02  | 78 Well          | 25 gpm (M)                           | 2213       | 9.5             | 4120            |                       |                      | 211TMD          | Johnson, R.       |
| 26                 | MBMG11          | Glacier | 36N      | 05W | 34 DDC             | 08            | 25  | 78 Reservoir     |                                      | 3480       | 21              | 4080            |                       | 280                  | 211VRL          | Heperson, Stanley |
| 27                 | 33M0001         | Glacier | 36N      | 05W | 04 AA              | 09            | 12  | 33 Well          |                                      |            | yes             | 4100            |                       |                      | 211TMD          |                   |
| 28                 | 65M0025         | Glacier | 36N      | 05W | 02 AA              | 10            | 01  | 65 Well          |                                      | 7.8        | yes             | 4070            | 14                    |                      | 211TMD          | Heperson, Stanley |
| 29                 | 33M0002         | Glacier | 36N      | 05W | 01 CC              | 07            | 18  | 33 Well          |                                      |            | yes             | 5000            |                       | 75                   | 211TMD          |                   |
| 30                 | 64M0010         | Glacier | 36N      | 05W | 12 CC              | 10            | 24  | 64 Well          |                                      | 1560       | 7.8             | 4110            | 180                   |                      | 211VLC          | Bergert, Ella     |

## CUT BANK 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref | Field<br>no | County  | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E-estimated<br>M-measured | Site description           | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name      |
|------------|-------------|---------|---------------------------|---------------------------------|-----------|--|----------------------------|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|-------------------|
| 31         | MBMG18      | Glacier | 37N 05W 35 CBDA           | 08 25 76                        | Well      |  | Domestic use               | 2120                                 | 21                   | no              |                   | 185                               |                        |                 | Berkam            |
| 32         | not on map  |         |                           |                                 |           |  |                            |                                      |                      |                 |                   |                                   |                        |                 |                   |
| 33         | MBMG08      | Glacier | 35N 05W 05 DDDDD          | 12 02 76                        | Well      |  | Domestic and stock use     | 3177                                 | 9                    | yes             | 4130              | 150                               | 211TMDG                |                 | Van Alstine, B    |
| 34         | MBMG08      | Glacier | 35N 05W 06 DBB            | 08 25 76                        | Reservoir |  | Stock use                  |                                      |                      | no              | 4090              |                                   |                        |                 |                   |
| 35         | 65M0037     | Glacier | 35N 05W 07 BB             | 10 23 64                        | Well      | 35 gpm (E)                                 | Industrial use             | 2050                                 |                      | yes             | 4140              | 80                                | 365                    | 211VRGL         | Montana Power     |
| 36         | MBMG7       | Glacier | 35N 05W 16 CARRB          | 08 25 76                        | Spring    | 5 gpm (E)                                  |                            | 7760                                 | 13.5                 | no              | 3970              |                                   |                        |                 |                   |
| 37         | 64M0011     | Glacier | 35N 05W 15 DC             | 10 22 64                        | Well      | 4 gpm (E)                                  |                            | 1700                                 | 8.3                  | yes             | 4150              | 280                               | 211VLCC                |                 | Lindberg, Glenn   |
| 38         | 60M0001     | Glacier | 35N 05W 22 CB             | 07 22 60                        | Well      |  | Domestic use               | 1400                                 |                      | yes             | 4130              | 90                                | 328                    | 211HGLC         | Montana Power     |
| 39         | MBMG6       | Glacier | 35N 05W 21 DADA           |                                 | Well      |  | Domestic use               | 1820                                 | 15.9                 | no              | 4060              | 110                               | 210                    | 211HGLC         | Montana Power     |
| 40         | 65M0014     | Glacier | 35N 05W 20 BB             | 09 28 65                        | Well      |  | Stock use                  |                                      |                      | yes             | 4060              | 327                               | 211VRGL                |                 | Johnson, P.       |
| 41         | 65M0032     | Glacier | 35N 05W 23 CD             | 10 09 65                        | Well      |  | Domestic and stock use     |                                      |                      | yes             | 3880              | 152                               | 211VLCC                |                 | Quist, John       |
| 42         | not on map  |         |                           |                                 |           |  |                            |                                      |                      | yes             | 3900              |                                   | 211VLCC                |                 |                   |
| 43         | 33M0005     | Glacier | 35N 05W 15 BD             | 09 12 54                        | Well      |  | Unused                     |                                      |                      | yes             | 3850              |                                   | 211VLCC                |                 |                   |
| 44         | 65M0038     | Glacier | 35N 05W 21 CB             | 10 22 65                        | Well      |  | Industrial use             |                                      |                      | yes             | 3890              | 575                               | 211VLCC                |                 | Teasco Inc.       |
| 45         | not on map  |         |                           |                                 |           |  |                            |                                      |                      |                 |                   |                                   |                        |                 |                   |
| 46         | 33M0005     | Glacier | 35N 05W 26 CD             | 09 16 33                        | Well      |  | Unused                     |                                      |                      | yes             | 3870              |                                   | 211VLCC                |                 |                   |
| 47         | MBMG5       | Glacier | 35N 05W 34 BBBCB          | 08 25 76                        | Well      |  | Domestic use               | 1810                                 | 11.2                 | no              | 3870              | 150                               | 211HGLC                |                 | DaZori, Anna      |
| 48         | 65M0015     | Glacier | 35N 05W 34 AB             | 09 30 65                        | Well      |  | Domestic and stock use     |                                      |                      | no              | 3974              | 76                                | 101                    | 211VRGL         | DaZori, G         |
| 49         | 64M0004     | Glacier | 34N 05W 03 BB             | 10 22 64                        | Well      |  | Unused, former school well | 810                                  | 7.8                  | yes             | 3880              | 48                                | 72                     | 211VRGL         | Fugle, D.         |
| 50         | 65M0013     | Glacier | 34N 05W 03 CC             | 10 16 65                        | Well      |  | Domestic and stock use     |                                      | 6.9                  | yes             | 3810              | 100                               | 201                    | 211VRGL         |                   |
| 51         | MBMG3       | Glacier | 34N 05W 03 CCCC           | 08 25 76                        | Well      |  | Domestic and stock use     |                                      |                      | yes             | 3890              |                                   |                        |                 | Fugle, Don        |
| 52         | MBMG2       | Glacier | 34N 05W 09 AAAA           | 08 25 76                        | Well      |  | Domestic use               | 1920                                 | 18                   | no              | 3880              | 175                               | 185                    | 211VRGL         | Fugle, Dick       |
| 53         | 65M0020     | Glacier | 32N 05W 11 DD             | 10 16 65                        | Well      | 5 gpm (E)                                  | Domestic use               | 720                                  | 13.2                 | no              | 3800              |                                   |                        | 211TMDG         | Dreder, E.        |
| 54         | 33M0006     | Glacier | 34N 05W 11 BA             | 03 14 33                        | Well      |  | Unused                     |                                      |                      | yes             | 3790              | 81                                |                        |                 | Vermulden, Herman |
| 55         | 65M0033     | Glacier | 34N 05W 12 CC             | 10 14 65                        | Well      |  | Domestic use               |                                      |                      | yes             | 3810              |                                   |                        |                 |                   |
| 56         | 65M0024     | Glacier | 34N 05W 14 BC             | 10 05 65                        | Well      |  |                            |                                      |                      | yes             | 3790              | 94                                | 211TMDG                |                 | Blitzer, R.       |
| 57         | 65M0010     | Glacier | 34N 05W 14 DD             | 10 05 65                        | Well      |  | Domestic use               |                                      | 7.8                  | yes             | 3800              | 190                               | 202                    | 211VRGL         | Haglund, G.       |
| 58         | 32M0001     | Glacier | 34N 05W 20 BA             | 10 05 65                        | Well      |  |                            |                                      |                      | yes             | 3790              | 230                               | 211VRGL                |                 | Rick, G.          |
| 59         | MBMG37      | Glacier | 34N 05W 20 BB             | 10 05 65                        | Well      |  |                            |                                      | 6.3                  | yes             | 3790              | 124                               |                        |                 |                   |
| 60         | MBMG1       | Glacier | 34N 05W 27 BBCCD          | 08 25 76                        | Reservoir |  |                            | 180                                  | 16.5                 | no              | 3800              |                                   |                        |                 | Peterson, E. O.   |

CUT BANK 1" x 2" Sheet (Cont.)

Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>no. | County  | Location           | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description                         | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>depth<br>(ft.) | Aquifer<br>code | Owner's name       |
|-------------|--------------|---------|--------------------|--------------------|--|--|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|-----------------|--------------------|
| 61          | 64M0006      | Glacier | 34N 05W 29 DA      | 10 20 64 Well      |  | Domestic end stock use                   | 1420                                 | 8.3                  | yes             | 3750              | 57                                | 160 211VRGL     | Tomechek, Harlod   |
| 62          | 65M0009      | Glacier | 34N 05W 35 DC      | 10 23 65 Well      |  | Domestic end stock use                   | 1090                                 | 13                   | yes             | 3860              | 98                                | 137 211VLC      | Ludette, V         |
| 63          | 64M0014      | Glacier | 34N 05W 34 BB 02B  | 08 25 76 Well      |  | Domestic use                             | 2490                                 | 4.0                  | yes             | 3870              | 6                                 | 27 112GLCC      | Dezort, Anna       |
| 64          | 64M0023A     | Glacier | 34N 07W 06 ABAA 04 | 13 76 Well         |  | Saline seep test area - Joliffe          |                                      |                      | yes             | 3880              | 171                               | 120 211VRGL     | Joliffe            |
| 65          | 64M0001      | Glacier | 33N 05W 03 DC      | 10 24 64 Well      |  | Domestic end stock use                   |                                      |                      | yes             | 3880              | 171                               | 120 211VRGL     | Peoples, E. J.     |
| 66          | 49M0002      | Glacier | 33N 06W 12 AA      | 03 19 49 Well      |  | Municipal supply                         |                                      |                      | yes             | 3750              | 238                               |                 | City of Cut Bank   |
| 67          | 64M0013      | Glacier | 33N 06W 12 AA      | 06 25 64 Well      |  | Municipal supply                         |                                      |                      | yes             | 3750              | 238                               |                 | City of Cut Bank   |
| 68          | 64M0012      | Glacier | 33N 06W 12 AA      | 06 03 64 Well      |  | Municipal supply                         |                                      |                      | yes             | 3750              | 238                               |                 | City of Cut Bank   |
| 69          | 65M0036      | Glacier | 33N 06W 12 AA      | 09 01 65 Well      |  | Municipal supply                         |                                      | 8.3                  | yes             | 3750              | 238                               |                 | City of Cut Bank   |
| 70          | 59M0002      | Glacier | 33N 06W 12 AA      | 01 29 59 Well      |  | Municipal supply                         |                                      |                      | yes             | 3750              | 238                               |                 | City of Cut Bank   |
| 71          | 59M0001      | Glacier | 33N 06W 02 CA      | 01 29 59 Well      |  | Unused                                   |                                      |                      | yes             | 3680              |                                   |                 |                    |
| 72          | 64M0018      | Glacier | 33N 06W 11 BB      | 03 19 64 Well      |  | Domestic use                             | 1600                                 | 10.5                 | yes             | 3870              | 270                               | 211VLC          | Brannen Services   |
| 73          | 64M0026      | Glacier | 33N 06W 11 BB      | 10 21 64 Well      | 80 gpm (E)                                     | Industrial                               | 1680                                 | 12                   | yes             | 3880              | 240                               | 208 211VRGL     | Union Oil Company  |
| 74          | 64M0003      | Glacier | 33N 05W 21 DA      | 10 12 64 Well      |  | Unused                                   |                                      |                      | yes             | 3600              |                                   | 211GLRD         | Christopherson, W. |
| 76          | 36M0003      | Glacier | 33N 06W 25 CB      | 06 21 36 Well      |  | Unused                                   |                                      |                      | yes             | 3720              | 250                               | 211TMDC         |                    |
| 77          | 37M0002      | Glacier | 32N 06W 01 AC      | 03 17 37 Well      |  | Unused                                   |                                      |                      | yes             | 3880              |                                   | 290 211VRGL     |                    |
| 78          | 34M0001      | Glacier | 32N 06W 10 DB      | 05 26 34 Well      |  | Domestic end stock use                   | 1018                                 |                      | yes             | 3880              |                                   |                 |                    |
| 79          | MBMG31       | Pondora | 31N 04W 18 ADC     | 06 26 78 Well      | 8 gpm (M)                                      | Domestic use                             | 1450                                 | 14.5                 | no              | 3250              | flowing                           | 40              | Lane               |
| 80          | MBMG30       | Pondora | 31N 06W 33 AAA     | 06 26 76 Well      |  | Domestic use                             | 1290                                 | 11.5                 | no              | 3620              |                                   | 60              | Stark              |
| 81          | MBMG29       | Pondora | 31N 06W 34 CCC     | 12 07 78 Well      |  | Domestic end stock use                   | 1347                                 |                      | yes             | 3510              | 100                               | 140 211VRGL     |                    |
| 82          | MBMG32       | Pondora | 31N 04W 16 ACC     | 06 26 78 Well      |  | Stock use                                | 1320                                 | 10.9                 | no              | 3620              | flowing                           |                 | Lane               |
| 83          | MBMG28       | Pondora | 30N 05W 03 ADAA    | 08 26 76 Well      |  | Domestic use                             | 1550                                 | 10                   | no              | 3650              |                                   |                 | Yager, Conely      |
| 84          | 76M1469      | Pondora | 30N 04W 06 CD88    | 12 06 76 Well      | 10 gpm (E)                                     | Stock use, saline seep project sample BB | 2792                                 | 8                    | yes             | 3600              |                                   | 7 211TPCK       | Ernie, L.          |
| 85          | MBMG33       | Pondora | 30N 04W 05 CBC     | 08 26 76 Well      |  | Domestic use                             | 1270                                 | 10                   | no              | 3600              |                                   | 40              | Slasak             |
| 86          | 76M1470      | Pondora | 30N 04W 10 AB88    | 12 06 78 Well      | 5 gpm (E)                                      | Domestic end stock use                   | 1507                                 | 7.0                  | yes             | 3680              |                                   | 90 211TPCK      | Nelson, J.         |
| 87          | MBMG35       | Pondora | 30N 04W 12 AB      | 06 26 78 Well      |  | Stock use                                | 2860                                 | 16                   | no              | 3620              | no                                | 60              | Newmiller, Ray     |
| 88          | MBMG36       | Pondora | 30N 04W 13 AB      | 06 26 78 Well      |  | Domestic use, water has a sulphur smell  | 1960                                 | 13                   | no              | 3620              |                                   | 160             | Newmiller, Ray     |
| 89          | 76M1475      | Pondora | 30N 04W 17 AAAA    | 12 06 78 Well      | 10 gpm (E)                                     | Domestic use                             | 3869                                 | 8                    | yes             | 3680              |                                   | 66 211TPCK      | Reames, Vance      |
| 90          | MBMG27       | Pondora | 30N 05W 07 AADD    | 08 26 78 Reservoir |  | Shallow reservoir                        | 810                                  | 13                   | no              | 3710              |                                   |                 | Widman, Andrew     |

## CUT BANK 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>number | County  | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or Yield<br>E - estimated<br>M - measured | Site description                           | Specific<br>conductivity<br>at 25 °C | Field<br>Temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name    |
|-------------|-----------------|---------|---------------------------|---------------------------------|--|--|--------------------------------------|---------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|-----------------|
| 91          | MBMG28          | Ponders | 30N 05W 31 ADD            | 08 26 78 Well                   | 3.5 gpm  | Stock and domestic use except for drinking | 1300                                 | 12.8                | no              | 3810              | 125                               |                        |                 | Dixon, Roy      |
| 92          | MBMG36          | Ponders | 30N 04W 23 CCC            | 08 26 78 Well                   |  | Stock and domestic use except for drinking | 3190                                 | 14                  | no              | 3760              | 120                               |                        |                 | Van Aulen, Al   |
| 93          | Not on map      |         |                           |                                 |  |  |                                      |                     |                 |                   |                                   |                        |                 |                 |
| 94          | MBMG35          | Ponders | 30N 04W 35 8CB8           | 08 26 78 Well                   |  | Domestic use                               | 5820                                 | 18                  | no              | 3780              |                                   |                        |                 | Atkin, Russ     |
| 95          | MBMG34          | Ponders | 30N 04W 32 CDD            | 08 26 78 Well                   |  | Domestic use                               | 2150                                 | 12                  | no              | 3280              |                                   |                        |                 | Prophy          |
| 96A         | 78MG246         | Ponders | 28N 03W 17 ABB8           | 04 14 78 Well                   |  | Bokma test well C27 - 8011 - 74            | 28130                                | 9.0                 | yes             | 2540              | 20                                | 54                     | 112TILL         | Bokma           |
| 96B         | 78MG245         | Ponders | 28N 03W 17 ADD8           | 04 14 78 Well                   |  | Bokma test well C78 - 803 - 74             | 1792                                 | 7.0                 | yes             | 3500              | 5                                 | 34                     | 112TILL         | Bokma           |
| 97          | MBMG37          | Ponders | 28N 05W 23 AAB            | 08 26 78 Well                   |  | Domestic use                               | 5824                                 | 18                  | yes             | 3890              |                                   | 108                    | 211VRGL         | Bourman, Joe    |
| 98          | MBMG20          | Ponders | 28N 05W 23 AAA            | 08 26 78 Well                   |  | Domestic use                               | 830                                  | 17                  | no              | 3820              |                                   |                        |                 | Kuka, Robert    |
| 99          | MBMG19          | Ponders | 28N 05W 18 8BB8           | 08 26 78 Well                   |  | Domestic use                               | 1036                                 | 13                  | no              | 3830              | 15                                |                        |                 |                 |
| 100         | MBMG18          | Ponders | 28N 05W 18 8BC            | 08 26 78 Well                   | 120 gpm  | Domestic use                               | 890                                  | 11.3                | no              | 3830              |                                   |                        |                 | Vandevort, Bill |
| 101         | MBMG17          | Ponders | 28N 05W 30 8C             | 08 26 78 Well                   |  | Domestic use                               | 810                                  | 11.5                | no              | 4050              | 80                                |                        |                 | Roberts, Jerry  |
| 102         | MBMG33          | Ponders | 28N 04W 24 DAA            | 08 26 78 Well                   | Reservoir                                      | 280  | 15.9                                 | no                  | 3620            |                   |                                   |                        |                 | Roberts, Jerry  |
| 103         | MBMG32          | Ponders | 28N 04W 24 DBB            | 08 26 78 Well                   |  | Domestic use except for drinking           | 6460                                 | 12                  | no              | 3660              | 12                                |                        |                 | De Vries        |
| 104         | MBMG47          | Ponders | 28N 03W 33 CBB            | 08 26 78 Well                   |  | Domestic use                               | 1160                                 | 17                  | no              | 3470              |                                   |                        |                 | De Vries        |
| 105         | MBMG46          | Ponders | 28N 03W 33 CAC            | 08 26 78 Spring                 |  | Domestic use                               | 820                                  | 18                  | no              | 3450              |                                   |                        |                 | De Vries        |
| 106         | MBMG24          | Ponders | 28N 04W 01 DBAA           | 08 26 78 Creek                  |  | South Fork Neuse River                     | 1630                                 | 11.5                | no              | 3680              |                                   |                        |                 | Warwick         |
| 107         | MBMG25          | Ponders | 28N 04W 11 ACAD           | 08 26 78 Well                   | 6 gpm  | Domestic use                               | 3470                                 | 14                  | no              | 3700              |                                   |                        |                 | Graham, Althea  |
| 108         | MBMG48          | Ponders | 28N 04W 03 C              | 08 26 78 Spring                 |  | Domestic use                               | 880                                  | 10                  | no              | 3720              |                                   |                        |                 | Geraat, John    |
| 109         | MBMG50          | Ponders | 28N 05W 13 AC             | 08 26 78 Well                   | > 50 gpm                                       | Domestic use                               | 1000                                 | 7                   | no              | 3850              | 25                                | 220                    |                 | Fisher, G       |
| 110         | MBMG51          | Ponders | 28N 05W 22 CA             | 12 07 76 Spring                 | 30 gpm   | Stock use                                  | 3059                                 | 9.0                 | yes             | 4020              |                                   |                        | 211VRGL         | Schultz, Clyde  |
| 111         | MBMG52          | Ponders | 28N 04W 33 BB             | 08 26 78 Well                   |  | Stock and Irrigation use                   | 2220                                 | 11.1                | no              | 4050              |                                   |                        |                 | Fish, C W       |
| 112         | MBMG18          | Ponders | 28N 04W 34 CDD            | 08 26 78 Spring                 |  | Stock use                                  | 1460                                 | 7.9                 | no              | 4130              | 90                                |                        |                 | Fish, C W       |
| 113         | MBMG15          | Ponders | 28N 04W 33 BBD            | 08 26 78 Well                   |  | Domestic use                               | 1422                                 | 12                  | yes             | 4130              | 90                                | 211DMC                 |                 | Fish, C W       |
| 114         | 78M1472         | Ponders | 28N 04W 03 C              | 12 07 76 Well                   |  | Domestic and stock use                     |                                      |                     |                 |                   |                                   |                        |                 |                 |
| 115         | MBMG14          | Ponders | 28N 05W 05 ABD            | 08 26 78 Pond                   |  |  | 1200                                 | 10                  | no              | 3970              |                                   |                        |                 | De Rose, J. F.  |
| 116         | not on map      |         |                           |                                 |  |  |                                      |                     |                 |                   |                                   |                        |                 |                 |
| 117         | MBMG10          | Ponders | 28N 07W 23 ABD            | 08 26 78 Reservoir              |  | Domestic use                               | 1400                                 | 10                  | no              | 4180              |                                   |                        |                 |                 |
| 118         | MBMG11          | Ponders | 28N 07W 23 ABA            | 08 26 78 Well                   |  | Stock use                                  | 1530                                 | 10.5                | no              | 4230              | 33                                |                        |                 |                 |
| 119         | MBMG12          | Ponders | 28N 07W 23 ABD            | 08 26 78 Well                   |  |  | 1160                                 | 9                   | no              | 4230              | 100                               |                        |                 |                 |



## CUT BANK 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec Tract | Collection<br>date | Flow or yield<br>Est. or measured<br>M = measured | Site description                        | Specific<br>conductivity<br>at 25°C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft | Static<br>water level<br>ft | Well<br>depth<br>ft | Aquifer<br>code | Owner's name     |
|--------------------|-----------------|----------|---------------------------|--------------------|---|---|-------------------------------------|----------------------|-----------------|----------------|-----------------------------|---------------------|-----------------|------------------|
| 120                | MBMG13          | Pondera  | 28N 07W 23 ABD            | 08 26 76 Spring    |   | Domestic use                            | 1620                                | 10                   | no              | 4180           |                             |                     |                 | Shepard          |
| 121                | MBMG7           | Pondera  | 28N 07W 06 DCCC           | 08 26 76 Well      |   | Domestic use                            | 770                                 | 14.5                 | no              | 4210           |                             |                     |                 |                  |
| 122                | MBMG7           | Pondera  | 28N 09W 20 ABDD           | 08 26 76 Creek     | 15 gpm  | Domestic use                            | 350                                 | 12.3                 | no              | 4430           |                             |                     |                 |                  |
| 123                | MBMG6           | Pondera  | 28N 09W 20 ABDD           | 08 26 76 Well      | 4 gpm   | Domestic use                            | 730                                 | 16.9                 | no              | 4430           |                             |                     |                 | Tenniford, Mark  |
| 124                | MBMG6           | Pondera  | 28N 09W 11 CCB            | 08 26 76 Reservoir |   | Shallow reservoir                       | 840                                 | 9                    | no              | 4610           |                             |                     | 12              |                  |
| 125                | MBMG5           | Pondera  | 28N 09W 14 DCCB           | 08 26 76 Well      |   | Domestic use                            | 450                                 | 12.6                 | no              | 4570           |                             |                     |                 | Linderth, A. B   |
| 126                | MBMG4           | Pondera  | 28N 09W 23 BAAD           | 08 26 76 Creek     |   | Sheep Creek                             | 470                                 | 11.8                 | no              | 4560           |                             |                     |                 |                  |
| 127                | MBMG3           | Pondera  | 28N 09W 17 DCD            | 08 26 76 Reservoir | 12 gpm  | Colly Lake                              | 1690                                | 12                   | no              | 4710           |                             |                     |                 |                  |
| 128                | MBMG2           | Pondera  | 28N 09W 19 BBDD           | 08 26 76 Lake      |   | Swift Reservoir                         | 370                                 | 12                   | no              | 4700           |                             |                     |                 |                  |
| 129                | MBMG1           | Pondera  | 28N 09W 22 DDD            | 08 26 76 Reservoir |   | Domestic use                            | 280                                 | 12                   | no              | 4980           |                             |                     |                 |                  |
| 130                | MBMG14          | Teton    | 27N 09W 09                | 08 25 76 Well      |   | Domestic use, water has a sulphur smell | 490                                 | 14                   | no              | 4250           |                             | 100                 |                 | Brownell         |
| 131                | MBMG13          | Teton    | 27N 09W 14 AAAA           | 08 25 76 Well      |   | Domestic use                            | 380                                 | 11                   | no              | 4230           |                             | 120                 |                 | Willemsen        |
| 132                | MBMG7           | Teton    | 27N 09W 10 ABD            | 08 25 76 Creek     | 1 cfs   | Jensen Coulee                           | 480                                 | 19                   | no              | 4270           |                             |                     |                 |                  |
| 133                | MBMG5           | Teton    | 27N 09W 09                | 08 25 76 Spring    |   | Domestic use                            | 470                                 | 10.6                 | no              | 4770           |                             |                     |                 | Den Boer, Albert |
| 135                | MBMG6           | Teton    | 27N 09W 10                | 08 25 76 Creek     | 5 cfs   | Middle Fork Dry Fork Maras River        | 660                                 | 18.5                 | no              | 4600           |                             |                     |                 |                  |
| 136                | MBMG4           | Teton    | 27N 09W 13 COD            | 01 18 77 Well      |   | Stock reservoir                         | 766                                 | 74                   | yes             | 4670           |                             | 12                  | 211TMD          | McCafer, Dave    |
| 137                | MBMG3           | Teton    | 27N 09W 21 DDBB           | 04 25 76 Reservoir |   | Domestic use                            |                                     |                      | no              | 4470           |                             |                     |                 |                  |
| 139                | not on map      | Teton    | 27N 09W 24 DCCB           | 01 18 77 Well      | 11 gpm  | Domestic and stock use                  | 1256                                | 14                   | yes             | 4150           | 90                          | 135                 | 211TPCK         | Holsten          |
| 140                | MBMG15          | Teton    | 27N 09W 23 BCCC           | 08 25 76 Well      |   | Domestic use                            | 430                                 | 14                   | no              | 4080           |                             | 20                  |                 | Henson           |
| 141                | MBMG17          | Teton    | 26N 09W 06 DDC            | 08 25 76 Well      |   | Domestic use                            | 480                                 | 12                   | no              | 4200           | 8                           | 16                  |                 | Swenson          |
| 142                | MBMG40          | Teton    | 26N 09W 13 DBBB           | 01 17 77 Well      |   | Domestic use                            | 2112                                | 11                   | yes             | 3840           | 35                          | 85                  | 211CLRD         | Apex H.          |
| 143                | MBMG38          | Teton    | 26N 09W 01 CBC            | 08 25 76 Well      |   | Domestic use                            | 540                                 | 16                   | no              | 4000           | 8                           | 10                  |                 | Rice, Don        |
| 144                | MBMG39          | Teton    | 26N 09W 01 CBC            | 08 25 76 Well      | 15 gpm  | Irrigation and stock use                | 1880                                | 9                    | no              | 4000           | 30                          | 70                  |                 | Rice, Don        |
| 145                | MBMG18          | Teton    | 27N 09W 21 DCCC           | 08 25 76 Well      |   | Domestic use                            | 620                                 | 12                   | no              | 4000           | 4                           | 36                  |                 | Christensen      |
| 146                | MBMG17          | Teton    | 27N 09W 34 BAA            | 08 25 76 Well      | 12 gpm  | Domestic use                            | 1180                                | 13                   | no              | 3860           | 10                          | 20                  |                 | Station          |
| 147                | MBMG18          | Teton    | 27N 09W 34 AB             | 08 25 76 Well      |   | Unused, formerly used for stock         | 3320                                | 14                   | no              | 3860           |                             |                     |                 |                  |
| 148                | 76N1463         | Gleicher | 36N 09W 13 AD             | 12 04 78 Well      |   |   | 1484                                | 21                   | yes             |                |                             | 450                 | 211VRGL         | Chesser, Kim     |

## CUT BANK 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no. | Field<br>number | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>E = estimated<br>M = measured | Site description                        | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name         |
|-------------|--------------|-----------------|----------|---------------------------|---------------------------------|--------|--|---|--------------------------------------|----------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|----------------------|
| 150         | 76M1456      |                 | Toole    | 37N 04W 02 DDC            | 12 03 76                        | Well   | 8 gpm (E)                                      | Saline seep research well               | 4186                                 | 9                    | yes             | 3640            | 118                             | 211VRL               |                 | Buckley, Pat         |
| 151         | 76M1456      |                 | Toole    | 37N 03W 20 A AC           | 12 03 76                        | Well   | 10 gpm (E)                                     | Saline seep research well               | 3012                                 | 10                   | yes             | 3930            | 168                             | 211VRL               |                 | Swain, Martin        |
| 152         | 76M1456      |                 | Toole    | 37N 03W 21 A CB           | 12 03 76                        | Well   | 10 gpm (E)                                     | Domestic use, saline seep research well | 5874                                 | 8.0                  | yes             | 3680            | 115                             | 211VRL               |                 | Swain, Martin        |
| 153         | 65M0005      |                 | Toole    | 37N 03W 21 D B            | 10 20 65                        | Well   |  | Stock use                               |                                      | 7.8                  | yes             | 3720            | 84                              | 211VRL               |                 | Dry, John            |
| 154         | 65M0002      |                 | Toole    | 37N 04W 27 CB             | 10 22 65                        | Well   |  | Domestic use                            |                                      |                      | yes             | 3600            | 135                             | 170 211VRL           |                 | Boswell, Alvin       |
| 155         | 54M0001      |                 | Toole    | 36N 04W 14 A B            | 02 10 64                        | Well   | 250 gpm (E)                                    | Municipal supply                        |                                      |                      | yes             | 3980            | 89                              | 169 211VRL           |                 | Town of Sunburst     |
| 156         | 54M0002      |                 | Toole    | 36N 04W 14 A A            | 09 08 64                        | Well   | 75 gpm (E)                                     | Unused                                  |                                      |                      | yes             | 4030            | 117                             | 174 211VRL           |                 | Town of Sunburst     |
| 157         | 65M0007      |                 | Toole    | 36N 04W 14 A C            | 06 30 65                        | Well   |  | Stock use                               |                                      | 7.8                  | yes             | 4070            | 141                             | 185 211VRL           |                 | Town of Sunburst     |
| 158         | 65M0003      |                 | Toole    | 36N 03W 19 C C A          | 10 30 65                        | Well   |  | Stock use                               |                                      |                      | yes             | 4060            | 115                             | 150 211VRL           |                 | Gillespie, E         |
| 159         | 65M0003      |                 | Toole    | 36N 04W 14 A C            | 06 30 65                        | Well   |  | Municipal supply                        |                                      | 7.8                  | yes             | 4020            | 165                             |                      |                 | Town of Sunburst     |
| 160         | 65M0023      |                 | Toole    | 36N 04W 22 D C            | 10 20 65                        | Well   |  | Stock use                               |                                      |                      | yes             | 4200            | 118                             | 211TMD               |                 | Gillespie, E         |
| 161         | 65M0004      |                 | Toole    | 36N 04W 26 A B            | 09 24 65                        | Well   |  | Unused                                  |                                      | 7.8                  | yes             | 4000            | 125                             | 225 211VRL           |                 | Big West Oil Co      |
| 162         | 65M0013      |                 | Toole    | 36N 04W 11 D D            | 10 22 65                        | Well   |  | Stock use                               | 1800                                 | 8.3                  | yes             | 3680            |                                 | 211VRL               |                 | Gondert, A           |
| 163         | 65M0035      |                 | Toole    | 33N 04W 31 D D            | 09 23 65                        | Well   |  | Stock use                               | 1610                                 |                      | yes             | 3760            | 120                             |                      |                 | Prophet, E           |
| 164         | 64M0008      |                 | Toole    | 32N 04W 28 A B            | 10 16 64                        | Well   |  | Domestic use                            | 900                                  | 8.3                  | yes             | 3760            | 35                              | 150 211VRL           |                 | Hjarterson, Jack     |
| 165         | 76M1884      |                 | Fairhead | 30N 18W 17 D C B C        | 04 08 77                        | Creek  | 136 cfs (M)                                    | Emery Creek                             | 128                                  | 1                    | yes             | 3600            |                                 |                      |                 |                      |
| 166         | 76M1885      |                 | Fairhead | 32N 17W 02 D C            | 04 11 77                        | Creek  | 572 cfs (M)                                    | Wounded Buck Creek                      | 214                                  | 4                    | yes             | 3580            |                                 |                      |                 |                      |
| 167         | 76M1885      |                 | Fairhead | 32N 17W 02 D C            | 04 11 77                        | Creek  | 93 cfs (M)                                     | South Fork Logan Creek                  | 104                                  | 2                    | yes             | 3680            | 200                             | 327 211VRL           |                 | Van Alstine, William |
| 168         | 65M0020      |                 | Gleicher | 34N 05W 06 D D            | 10 23 64                        | Well   |  | Domestic and stock use                  | 3000                                 | 8.3                  | yes             | 3640            |                                 |                      |                 |                      |
| 169         | 65M0020      |                 | Gleicher | 32N 05W 28 D C            | 10 23 65                        | Well   |  |   |                                      | 6.1                  | yes             | 3680            |                                 |                      |                 |                      |
| 170         | 37M0001      |                 | Gleicher | 33N 06W 10 B B            | 03 17 37                        | Well   |  | Unused                                  |                                      |                      | yes             | 3810            |                                 | 211TMD               |                 |                      |
| 171         | 00M0006      |                 | Gleicher | 32N 06W 01 A C            |                                 | Well   |  |   |                                      |                      | yes             | 3720            | 250                             | 211TMD               |                 |                      |
| 172         | 00M0006      |                 | Gleicher | 33N 06W 25 CB             |                                 | Well   |  |   |                                      |                      | yes             | 3600            |                                 | 211CLRD              |                 |                      |
| 173         | 65M0011      |                 | Gleicher | 34N 05W 31 D D            | 10 26 65                        | Well   |  | Domestic use                            |                                      |                      | yes             | 3720            | 27                              | 164 211VRL           |                 | Kennedy, Brady       |
| 174         | 00M0009      |                 | Gleicher | 34N 06W 11 B A            |                                 | Well   |  |   |                                      |                      | yes             | 3780            |                                 | 211TMD               |                 |                      |
| 175         | 00M0007      |                 | Gleicher | 36N 05W 04 D B            |                                 | Well   |  | Unused                                  |                                      |                      | yes             | 3970            |                                 | 211TMD               |                 |                      |
| 176         | 65M0019      |                 | Toole    | 36N 04W 11 D B C          | 08 26 78                        | Well   |  | Stock use                               | 2850                                 | no                   | yes             | 3830            | 16                              | 46 211VRL            |                 | Mockard, H.          |
| 177         | 65M0008      |                 | Toole    | 37N 03W 04 A D            | 08 04 65                        | Well   |  |   | 1780                                 |                      | yes             | 3510            | 47                              | 165 211VRL           |                 |                      |
| 178         | 65M0008      |                 | Toole    | 37N 04W 12 D B            | 10 20 65                        | Well   |  |   | 1600                                 | 8.9                  | yes             | 3860            |                                 | 66 211VRL            |                 | Gondert, J           |
| 179         | 00M0010      |                 | Toole    | 36N 04W 11 D D            |                                 | Well   |  |   |                                      |                      | yes             |                 |                                 | 124 211VRL           |                 | Rice, Gordon         |
| 180         | 65M0012      |                 | Gleicher | 34N 05W 20 B B            | 10 06 65                        | Well   |  |   |                                      | 8.33                 | yes             | 3770            | 67                              |                      |                 |                      |

CUT BANK 15

## Chemical Analyses

| Map<br>ref.<br>no. | T   | R   | Location<br>Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|-----|-----|-----------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 1                  | 37N | 05W | 10 DC                 | 01 21 49                        | Well   | 47              | 31                     | 543*           |                       |              |                        |                               | 799                                     | 18                                   | 48               | 641                           |
| 2                  | 37N | 05W | 07 AD                 | 10 19 85                        | Well   | 8               | 2                      | 450*           |                       |              |                        |                               | 610                                     | 66                                   | 26               | 388                           |
| 4                  | 37N | 05W | 15 DA                 | 10 18 85                        | Well   | 70              | 71                     | 495*           |                       |              |                        |                               | 268                                     |                                      | 33               | 795                           |
| 5                  | 37N | 05W | 19 DA                 | 10 19 85                        | Well   | 156             | 89                     | 925*           |                       | 18.4         |                        |                               | 1037                                    |                                      | 34               | 1780                          |
| 6                  | 37N | 05W | 26 CB                 | 10 18 85                        | Well   | 4               | 1                      | 366*           |                       |              |                        |                               | 583                                     | 39                                   | 10               | 242                           |
| 7                  | 37N | 05W | 29 DD                 | 10 19 85                        | Well   | 90              | 78                     | 725*           |                       | 13.6         |                        |                               | 1080                                    |                                      | 20               | 1185                          |
| 8                  | 37N | 05W | 35 CD                 | 10 15 85                        | Well   | 62              | 70                     | 68*            |                       |              |                        |                               | 268                                     |                                      | 114              | 200                           |
| 9                  | 36N | 05W | 04 AB                 | 10 15 85                        | Well   | 14              | 44                     | 1130*          |                       |              |                        |                               | 630                                     | 45                                   | 33               | 1950                          |
| 10                 | 36N | 05W | 04 DB                 | 02 14 40                        | Well   | 73              | 30                     | 2865*          |                       |              |                        |                               | 5750                                    |                                      | 1296             |                               |
| 11                 | 36N | 05W | 09 BC                 | 12 02 76                        | Well   | 130             | 62.8                   | 1100           | 5.2                   | .88          | .18                    | 7.7                           | 903                                     |                                      | 32               | 2200                          |
| 13                 | 36N | 06W | 12 AC                 | 03 18 47                        | Well   | 43              | 62                     | 2735*          |                       |              |                        |                               | 2826                                    | 298                                  | 1782             | 961                           |
| 14                 | 36N | 06W | 02 DA                 | 02 23 33                        | Well   |                 |                        | 546*           |                       |              |                        |                               | 575                                     | 37                                   | 129              | 454                           |
| 15                 | 36N | 05W | 01 DC                 | 03 18 84                        | Well   | 3               | 5                      |                |                       |              |                        |                               | 506                                     | 65                                   | 23               | 257                           |
| 16                 | 36N | 05W | 12 DC                 | 06 21 54                        | Well   | 2               | 4                      | 366*           |                       | .12          |                        |                               | 488                                     | 42                                   | 12               | 215                           |
| 17                 | 36N | 05W | 13 AA                 | 06 21 54                        | Well   | 1               | 2                      | 430*           |                       | .22          |                        |                               | 614                                     | 54                                   | 38.5             | 38.5                          |
| 18                 | 36N | 05W | 14 BD                 | 10 24 64                        | Well   | 8               |                        | 322*           |                       | .24          |                        |                               | 540                                     | 21                                   | 15               | 215                           |
| 19                 | 36N | 05W | 14 AC                 | 09 24 85                        | Well   | 2               |                        | 221*           |                       | 3.30         |                        |                               | 370                                     | 57                                   | 16               | 43                            |
| 24                 | 34N | 05W | 20 BB                 | 10 08 85                        | Well   |                 |                        |                |                       |              |                        |                               |   |                                      |                  |                               |
| 25                 | 36N | 05W | 33 CBBC               | 12 02 76                        | Well   | 220             | 107                    | 162            | 6.3                   | 1.19         | .43                    | 9.2                           | 362                                     |                                      | 52               | 952                           |
| 27                 | 35N | 06W | 04 AA                 | 09 12 33                        | Well   |                 |                        | 796*           |                       |              |                        |                               | 620                                     | 42                                   | 83               | 997                           |
| 28                 | 35N | 05W | 02 AA                 | 10 01 85                        | Well   | 62              | 28                     | 86*            |                       | 1.84         |                        |                               | 384                                     | 15                                   | 9                | 97                            |
| 29                 | 35N | 05W | 01 CC                 | 07 18 33                        | Well   |                 |                        | 844*           |                       |              |                        |                               | 965                                     |                                      | 52               | 932                           |
| 30                 | 35N | 05W | 12 CC                 | 10 24 64                        | Well   | 4               |                        | 421*           |                       |              |                        |                               | 674                                     | 9                                    | 26               | 308                           |
| 33                 | 35N | 06W | 06 DDDO               | 12 02 76                        | Well   | 5.9             | 1.7                    | 771*           | 1.7                   | .04          | <.01                   | 6.6                           | 749                                     | 9.6                                  | 30               | 967                           |
| 35                 | 35N | 05W | 07 BB                 | 10 23 64                        | Well   | 4               |                        | 550*           |                       | .14          |                        |                               | 740                                     | 24                                   | 29               | 486                           |
| 37                 | 35N | 05W | 15 DC                 | 10 22 64                        | Well   | 4               |                        | 439*           |                       |              |                        |                               | 677                                     | 15                                   | 22               | 340                           |
| 38                 | 35N | 05W | 22 CB                 | 07 22 80                        | Well   |                 |                        | 422*           |                       |              |                        |                               | 585                                     | 59                                   | 29               | 286                           |
| 40                 | 35N | 05W | 20 BB                 | 09 28 85                        | Well   | 186             | 97                     | 1020*          |                       | 3.70         |                        |                               | 850                                     |                                      | 39               | 2330                          |
| 41                 | 35N | 06W | 23 CD                 | 10 09 65                        | Well   | 8               | 5                      | 950*           |                       | .10          |                        |                               | 853                                     | 18                                   | 40               | 1420                          |
| 42                 | 35N | 06W | 14 CB                 | 03 30 34                        | Well   |                 |                        | 553*           |                       |              |                        |                               | 785                                     |                                      | 109              | 391                           |
| 43                 | 35N | 06W | 15 BD                 | 05 12 33                        | Well   | 19              |                        | 1162*          |                       | 19           |                        |                               | 640                                     | 24                                   | 48               | 1863                          |
| 44                 | 35N | 06W | 21 CB                 | 10 22 85                        | Well   | 34              | 13                     | 2120*          |                       | .30          |                        |                               | 265                                     |                                      | 3200             | 10                            |
| 46                 | 35N | 06W | 28 CD                 | 09 16 33                        | Well   |                 |                        | 386*           |                       |              |                        |                               | 685                                     |                                      | 14               | 288                           |
| 48                 | 35N | 05W | 34 AB                 | 09 30 65                        | Well   | 46              | 56                     | 105*           |                       |              |                        |                               | 480                                     |                                      |                  | 161                           |
| 49                 | 34N | 05W | 03 BB                 | 10 22 64                        | Well   | 51              | 17                     | 126*           |                       | 8.60         |                        |                               | 393                                     |                                      | 6                | 136                           |
| 50                 | 34N | 05W | 03 CC                 | 10 16 65                        | Well   | 14              | 9                      | 385*           |                       |              |                        |                               | 756                                     | 63                                   | 94               | 50                            |
| 53                 | 32N | 05W | 11 DD                 | 10 16 65                        | Well   | 34              | 27                     | 325*           |                       |              |                        |                               | 548                                     |                                      | 9                | 418                           |
| 54                 | 34N | 06W | 11 BA                 | 03 14 33                        | Well   | 35              |                        | 428*           |                       |              |                        |                               | 1685                                    |                                      | 5667             |                               |
| 55                 | 34N | 06W | 12 CC                 | 10 14 65                        | Well   | 78              | 35                     | 555*           |                       | .14          |                        |                               | 550                                     | 30                                   | 43               | 937                           |
| 56                 | 34N | 06W | 14 BC                 | 10 05 65                        | Well   | 4               | 1                      | 420*           |                       |              |                        |                               | 717                                     | 45                                   | 18               | 229                           |
| 57                 | 34N | 06W | 14 DD                 | 10 05 85                        | Well   | 34              | 18                     | 570*           |                       | .80          |                        |                               | 708                                     |                                      | 116              | 622                           |
| 58                 | 34N | 06W | 24 DA                 | 11 07 32                        | Well   |                 |                        | 670*           |                       |              |                        |                               | 758                                     |                                      | 99               | 637                           |
| 59                 | 34N | 05W | 20 BB                 | 10 06 65                        | Well   | 90              | 45                     | 191*           |                       | 1.32         |                        |                               | 494                                     |                                      | 15               | 378                           |
| 61                 | 34N | 05W | 29 DA                 | 10 20 64                        | Well   | 51              | 53                     | 184*           |                       | 2.24         |                        |                               | 372                                     |                                      | 11               | 404                           |
| 62                 | 34N | 05W | 35 DC                 | 10 23 65                        | Well   | 370             | 372                    | 492*           |                       | 6.40         |                        |                               | 226                                     |                                      | 80               | 2880                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(M) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|--------------------------------------|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 1                  |                |                 |           |                      |                                      |                                | 245                                       | 695   |                               | USGS                 | 142                    | 211VRGL         | No                            | 49M0001       |
| 2                  | .407           | 1.1             |           | 7.77                 | 1800                                 |                                | 25  | 610   |                               | USGS                 |                        | 211TMDQ         | No                            | 65M0029       |
| 4                  |                | .8              |           |                      | 2700                                 |                                | 468                                       | 220   |                               | USGS                 | 133                    | 211VRGL         | No                            | 65M0016       |
| 5                  | .361           | 1.2             |           | 8.7                  | 3500                                 |                                | 775                                       | 851   |                               | USGS                 |                        | 211TMDQ         | No                            | 65M0028       |
| 6                  |                | 1.0             |           |                      |                                      |                                | 15  | 543   |                               | USGS                 | 172                    | 211VRGL         | No                            | 65M0019       |
| 7                  | .113           | .8              |           |                      |                                      |                                | 545                                       | 869   |                               | USGS                 |                        | 211TMDQ         | No                            | 65M0027       |
| 8                  |                | .2              |           |                      |                                      |                                | 440                                       | 220   |                               | USGS                 | 186                    | 211VRGL         | No                            | 65M0018       |
| 9                  | .520           | 1.3             |           |                      | 4000                                 |                                | 215                                       | 592   |                               | USGS                 |                        | 211TMDQ         | No                            | 65M0022       |
| 10                 |                |                 |           |                      |                                      |                                | 306                                       | 4720  |                               | USGS                 |                        | 211TMDQ         | No                            | 40M0001       |
| 11                 | <.023          | .7              | 7.62      | 8                    | 5153                                 | 3984                           | 583                                       | 741   | 19.8                          | MBMG                 | 130                    | 211TMDQ         | Yes                           | 76M1456       |
| 13                 |                |                 |           |                      |                                      |                                | 383                                       | 2810  |                               | USGS                 |                        |                 | No                            | 47M0012       |
| 14                 |                |                 |           |                      |                                      |                                |   | 533   |                               | USGS                 |                        | 211VLCC         | No                            | 33M0004       |
| 15                 |                |                 |           |                      |                                      |                                | 28  | 523   |                               | USGS                 | 475                    | 211VRGL         | No                            | 54M0005       |
| 16                 |                |                 |           |                      |                                      |                                | 21  | 470   |                               | USGS                 | 407                    | 211VRGL         | No                            | 54M0004       |
| 17                 |                |                 |           |                      |                                      |                                | 11  | 594   |                               | USGS                 | 520                    | 211VRGL         | No                            | 54M0003       |
| 18                 |                | 1.1             |           |                      | 1290                                 |                                | 20  | 478   |                               | USGS                 |                        | 211TMDQ         | No                            | 64M0009       |
| 19                 |                | .6              |           | 8.9                  |                                      |                                | 5   | 399   |                               | USGS                 | 450                    | 211VRGL         | No                            | 65M0017       |
| 24                 |                |                 |           | 8.3                  |                                      |                                |   |   |                               |                      |                        | 211VRGL         | No                            |               |
| 25                 | <.023          | .3              | 7.43      | 9.5                  | 2213                                 | 1689                           | 990                                       | 293   | 2.2                           | MBMG                 | 130                    | 211TMDQ         | Yes                           | 76M1454       |
| 27                 |                |                 |           |                      |                                      |                                |   | 579   |                               | USGS                 | 280                    | 211VRGL         | No                            | 33M0001       |
| 28                 |                | .4              |           | 7.8                  |                                      |                                | 270                                       | 340   |                               | USGS                 |                        | 211TMDQ         | No                            | 65M0025       |
| 29                 |                |                 |           |                      |                                      |                                |   | 791   |                               | USGS                 | 75                     | 211TMDQ         | No                            | 33M0002       |
| 30                 |                | 2.0             |           | 7.8                  | 1550                                 |                                | 10  | 568   |                               | USGS                 |                        | 211VLCC         | No                            | 64M0010       |
| 33                 | .047           | 1.7             | 8.35      | 9                    | 3177                                 | 2164                           | 22  | 630   | 72.0                          | MBMG                 | 160                    | 211TMDQ         | Yes                           | 76M1463       |
| 35                 |                |                 |           |                      | 2050                                 |                                | 10  | 647   |                               | USGS                 | 366                    | 211VRGL         | No                            | 64M0007       |
| 37                 | .090           | 1.9             |           | 8.3                  | 1700                                 |                                | 10  | 580   |                               | USGS                 | 280                    | 211VLCC         | No                            | 64M0011       |
| 38                 |                |                 |           |                      | 1400                                 |                                |   | 576   |                               | USGS                 | 326                    | 211RGLC         | No                            | 60M0001       |
| 40                 |                | 1.5             |           | 7.8                  |                                      |                                | 810                                       | 533   |                               | USGS                 | 327                    | 211VRGL         | No                            | 65M0014       |
| 41                 | 950            | 3.7             |           |                      |                                      |                                | 40  | 566   |                               | USGS                 |                        | 211VLCC         | No                            | 65M0032       |
| 42                 |                |                 |           |                      |                                      |                                |   | 644   |                               | USGS                 |                        | 211VLCC         | No                            | 34M0002       |
| 43                 |                |                 |           |                      |                                      |                                | 47  | 565   |                               | USGS                 |                        | 211VLCC         | No                            | 33M0003       |
| 44                 |                | 1.8             |           |                      |                                      |                                | 140                                       | 217   |                               | USGS                 | 575                    | 211VLCC         | No                            | 65M0038       |
| 46                 |                |                 |           |                      |                                      |                                |   | 546   |                               | USGS                 |                        | 211VLCC         | No                            | 33M0005       |
| 48                 |                |                 |           | 8.3                  |                                      |                                | 345                                       | 369   |                               | USGS                 | 101                    | 211VRGL         | No                            | 65M0015       |
| 49                 |                | .3              |           | 7.8                  | 810                                  |                                | 199                                       | 322   |                               | USGS                 | 72                     | 211VRGL         | No                            | 64M0004       |
| 50                 |                | 2.9             |           | 8.9                  |                                      |                                | 70  | 725   |                               | USGS                 | 201                    | 211VRGL         | No                            | 65M0013       |
| 53                 |                | .9              |           |                      |                                      |                                | 195                                       | 449   |                               | USGS                 | 185                    | 211VRGL         | No                            | 65M0020       |
| 54                 |                |                 |           |                      |                                      |                                | 87  | 1380  |                               | USGS                 |                        | 211TMDQ         | No                            | 33M0006       |
| 55                 |                | 1.3             |           |                      |                                      |                                | 340                                       | 501   |                               | USGS                 |                        | 211TMDQ         | No                            | 65M0033       |
| 56                 |                | 7.5             |           |                      |                                      |                                | 15  | 663   |                               | USGS                 |                        | 211TMDQ         | No                            | 65M0024       |
| 57                 |                | 1.6             |           | 7.8                  |                                      |                                | 160                                       | 581   |                               | USGS                 | 202                    | 211VRGL         | No                            | 65M0010       |
| 58                 |                |                 |           |                      |                                      |                                |   | 619   |                               | USGS                 | 230                    | 211VRGL         | No                            | 32M0001       |
| 59                 |                | .4              |           | 8.3                  |                                      |                                | 410                                       | 406   |                               | USGS                 | 124                    |                 | No                            | 65M0037       |
| 61                 |                | .5              |           | 8.3                  | 1420                                 |                                | 347                                       | 305   |                               | USGS                 | 160                    | 211VRGL         | No                            | 64M0006       |
| 62                 |                | 1.4             |           |                      |                                      |                                | 2460                                      | 185   |                               | USGS                 | 137                    | 211VLCC         | No                            | 65M0008       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|------------------|-------------------------------|
| 64                 | 34N 07W 06 ABAA           | 04 13 76                        | Well   | 94              | 49                     | 448*           | 14                    | .25          | .80                    | 8.4                           | 464                                     | 52               | 1018                          |
| 65                 | 33N 05W 03 DC             | 10 24 64                        | Well   | 102             | 81                     | 220*           |                       | .80          |                        |                               | 360                                     | 21               | 705                           |
| 66                 | 33N 08W 12 AA             | 03 19 49                        | Well   | 316             | 43                     | 358*           |                       | .2           |                        |                               | 580                                     |                  | 549                           |
| 67                 | 33N 08W 12 AA             | 08 26 64                        | Well   | 90              | 62                     | 623*           |                       |              |                        |                               | 583                                     | 56               | 1220                          |
| 68                 | 33N 08W 12 AA             | 05 03 64                        | Well   | 101             | 73                     | 735*           |                       | .14          |                        |                               | 600                                     | 53               | 1510                          |
| 69                 | 33N 08W 12 AA             | 09 01 65                        | Well   | 108             | 125                    | 1375*          |                       |              |                        |                               | 450                                     | 9                | 108                           |
| 70                 | 33N 08W 12 AA             | 01 29 59                        | Well   | 50              | 56                     | 271*           |                       | .7           |                        |                               | 566                                     | 21               | 437                           |
| 71                 | 33N 08W 02 CA             | 01 29 59                        | Well   | 47              | 35                     | 24*            |                       |              |                        |                               | 226                                     | 4                | 117                           |
| 72                 | 33N 08W 10 BB             | 08 24 36                        | Well   | 51              |                        | 255*           |                       |              |                        |                               | 440                                     | 38               | 286                           |
| 73                 | 33N 08W 11 BD             | 10 23 65                        | Well   | 18              | 40                     | 565*           |                       | .54          |                        |                               | 427                                     | 33               | 45                            |
| 74                 | 33N 05W 21 BB             | 10 26 64                        | Well   | 18              | 21                     | 397*           |                       |              |                        |                               | 475                                     | 33               | 58                            |
| 75                 | 33N 05W 21 DA             | 10 12 64                        | Well   | 74              | 55                     | 266*           |                       | .20          |                        |                               | 543                                     | 14               | 500                           |
| 76                 | 33N 08W 25 CB             | 06 21 36                        | Well   | 200             |                        | 6641*          |                       |              |                        |                               | 720                                     | 10150            | 32                            |
| 77                 | 32N 08W 01 AC             | 03 17 37                        | Well   |                 |                        | 548*           |                       |              |                        |                               | 600                                     | 50               | 116                           |
| 78                 | 32N 05W 10 DB             | 06 28 34                        | Well   |                 |                        | 406*           |                       |              |                        |                               | 620                                     | 67               | 31                            |
| 81                 | 31N 08W 34 CCC            | 12 07 76                        | Well   | .91             | 66.8                   | 130            | 3                     | .09          | .01                    | 9.3                           | 504                                     | 10.5             | 331                           |
| 84                 | 30N 04W 06 CDBB           | 12 06 76                        | Well   | 230             | 188                    | 210            | 6.7                   | .16          | .02                    | 8.0                           | 396                                     | 32               | 1327                          |
| 88                 | 30N 04W 10 ABDB           | 12 06 76                        | Well   | 53              | 30.8                   | 249            | 3.8                   | 1.31         | .06                    | 9.2                           | 451                                     | 25.5             | 399                           |
| 89                 | 30N 04W 17 AAAA           | 12 06 76                        | Well   | 72              | 68.2                   | 825            | 8                     | 1.10         | .03                    | 9.2                           | 1140                                    | 53               | 1172                          |
| 96A                | 28N 03W 17 AABG           | 04 14 76                        | Well   | 474             | 3470                   | 4720           | 46                    | .22          | .20                    | 10.8                          | 1039                                    | 782.5            | 22110                         |
| 96B                | 28N 03W 17 ABDB           | 04 14 76                        | Well   | 141             | 122                    | 190            | 6                     | .04          | .01                    | 2.0                           | 183                                     | 80               | 1023.6                        |
| 97                 | 29N 04W 06 CCD            | 12 07 76                        | Well   | 145             | 76.4                   | 1280           | 7                     | .13          | .03                    | 9.4                           | 948                                     | 67               | 2463                          |
| 110                | 28N 05W 22 CA             | 12 07 76                        | Spring | 306             | 172                    | 230            | 5.6                   | .09          | .01                    | 10.7                          | 511                                     | 28               | 1366                          |
| 114                | 28N 08W 03 C              | 12 07 76                        | Well   | 11.2            | 13.3                   | 310            | 3.1                   | .05          | <.01                   | 9.4                           | 569                                     | 36.5             | 167                           |
| 136                | 27N 08W 13 CDD            | 01 18 77                        | Well   | .7              | .2                     | 175            | .4                    | .02          | <.01                   | 7.5                           | 307                                     | 72               | 8.0                           |
| 139                | 27N 08W 34 DCBC           | 01 18 77                        | Well   | 1.4             | .5                     | 324            | 1.2                   | .01          | <.01                   | 7.1                           | 742                                     | 28.8             | 16                            |
| 142                | 28N 05W 13 CBDB           | 01 17 77                        | Well   | 70              | 165                    | 220            | 1.9                   | .05          | .02                    | 10.7                          | 508                                     | 86               | 748                           |
| 148                | 38N 08W 13 AD             | 12 04 76                        | Well   | .8              | .9                     | 365            | 1.0                   | .03          | <.01                   | 8.7                           | 941                                     | 38.4             | 14.5                          |
| 150                | 37N 04W 02 DDC            | 12 02 76                        | Well   | 62.5            | 32.8                   | 935            | 4.2                   | .08          | .02                    | 7.1                           | 633                                     | 29               | 1701                          |
| 161                | 37N 03W 30 ACC            | 12 03 76                        | Well   | 82.4            | 72                     | 560            | 3.8                   | .01          | .02                    | 8.1                           | 607                                     | 22               | 1137                          |
| 152                | 37N 03W 21 ACB            | 12 03 76                        | Well   | 43.2            | 46.4                   | 1420           | 5.3                   | .04          | .01                    | 7.3                           | 1524                                    | 8.0              | 2123                          |
| 153                | 37N 03W 21 DB             | 10 20 65                        | Well   | 100             | 71                     | 480*           |                       | 2.14         |                        |                               | 600                                     | 16               | 1022                          |
| 154                | 37N 04W 27 CB             | 10 22 65                        | Well   | 4               |                        | 432*           |                       | .22          |                        |                               | 674                                     | 57               | 8                             |
| 155                | 36N 04W 14 AB             | 02 10 54                        | Well   | 70.1            | 46.7                   | 124.9*         |                       | .4           |                        |                               | 463                                     | 10               | 231.2                         |
| 166                | 36N 04W 14 AA             | 09 06 54                        | Well   | 58              | 41                     | 170*           |                       | 1            |                        |                               | 488                                     | 11               | 247                           |
| 167                | 36N 04W 14 AC             | 06 30 65                        | Well   | 28              | 41                     | 259*           |                       | .24          |                        |                               | 412                                     | 9                | 430                           |
| 158                | 36N 03W 19 CAA            | 10 21 65                        | Well   | 24              | 42                     | 50*            |                       | .18          |                        |                               | 263                                     | 12               | 7                             |
| 159                | 36N 04W 14 AC             | 06 30 65                        | Well   | 28              | 41                     | 259*           |                       | .24          |                        |                               | 412                                     | 9                | 430                           |
| 180                | 36N 04W 22 DC             | 10 20 65                        | Well   | 68              | 62                     | 138*           |                       | 1.36         |                        |                               | 342                                     | 16               | 392                           |
| 161                | 36N 04W 35 AB             | 09 24 65                        | Well   | 32              | 37                     | 151*           |                       | 5.72         |                        |                               | 427                                     | 8                | 190                           |
| 162                | 35N 04W 11 DD             | 10 22 65                        | Well   | 64              | 28                     | 307*           |                       | 2.20         |                        |                               | 442                                     | 6                | 545                           |
| 163                | 33N 04W 31 BD             | 09 23 65                        | Well   | 12              | 13                     | 333*           |                       | 7.48         |                        |                               | 317                                     | 27               | 470                           |
| 164                | 32N 04W 28 AB             | 10 16 04                        | Well   | 46              | 46                     | 90*            |                       | .34          |                        |                               | 250                                     | 9                | 22                            |
| 165                | 30N 18W 17 CBBC           | 04 08 77                        | Creek  | 15.6            | 6.3                    | 1.4            | .5                    | .01          | <.01                   | 6.4                           | 78                                      | 1.1              | 3.1                           |
| 166                | 29N 18W 17 CBBC           | 04 11 77                        | Creek  | 34.7            | 7.2                    | 1.2            | .3                    | .03          | <.01                   | 4.3                           | 134                                     | 2.8              | 2.5                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## of Selected Waters (Con't.)

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | pH   | Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Traces<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|------|-------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|--------------------------------|---------------|
| 64                 | .045           | 2               | 7.30 | 4.0         | 2490  | 1906                           | 438                                       | 272   | 9.3                           | MBMG                 | 27                     | 112GLCC         | Yes                            | 76M0234       |
| 85                 |                | .7              |      |             |   |                                | 587                                       | 295   |                               | USGS                 | 120                    | 211VRGL         | No                             | 64M0001       |
| 58                 |                |                 |      |             |   |                                | 966                                       | 476   |                               | USGS                 | 238                    |                 | No                             | 49M0002       |
| 67                 | .249           | 1.0             |      |             |   |                                | 480                                       | 478   |                               | USGS                 | 238                    |                 | No                             | 64M0013       |
| 58                 | .158           | .7              |      |             |   |                                | 552                                       | 492   |                               | USGS                 | 238                    |                 | No                             | 64M0012       |
| 69                 |                | 1.4             |      | 8.3         |   |                                | 785                                       | 384   |                               | USGS                 | 238                    |                 | No                             | 95M0036       |
| 70                 | .09            | .4              |      |             |   |                                | 255                                       | 456   |                               | USGS                 | 238                    |                 | No                             | 58M0002       |
| 71                 | .090           | .1              |      |             |   |                                | 260                                       | 185   |                               | USGS                 |                        |                 | No                             | 58M0001       |
| 72                 |                |                 |      |             |   |                                | 127                                       | 424   |                               | USGS                 |                        | 211TMDCC        | No                             | 35M0002       |
| 73                 |                | 1.7             |      |             |   |                                | 210                                       | 405   |                               | USGS                 |                        | 211VLCC         | No                             | 95M0028       |
| 74                 |                | .8              |      | 10.6        | 1600  |                                | 133                                       | 445   |                               | USGS                 | 211                    | 211VLCC         | No                             | 64M0002       |
| 75                 |                | .6              |      | 12          | 1680  |                                | 408                                       | 445   |                               | USGS                 | 285                    | 211VRGL         | No                             | 64M0003       |
| 76                 |                |                 |      |             |   |                                | 499                                       | 581   |                               | USGS                 |                        | 211CLRD         | No                             | 36M0003       |
| 77                 |                |                 |      |             |   |                                | 400                                       | 575   |                               | USGS                 |                        | 211TMDCC        | No                             | 27M0002       |
| 78                 |                |                 |      |             | 1019  |                                |   | 620   |                               | USGS                 | 290                    | 211VRGL         | No                             | 34M0001       |
| 81                 | 2.71           | .2              | 7.58 | 8.0         | 1347  | 892                            | 502                                       | 413   | 2.5                           | MBMG                 | 140                    | 211VRGL         | Yes                            | 76M1471       |
| 84                 | 14.46          | .2              | 7.87 | 9.0         | 2792  | 2212                           | 1350                                      | 325   | 2.5                           | MBMG                 | 7                      | 211TPCK         | Yes                            | 76M1469       |
| 86                 | .025           | .3              | 7.78 | 7           | 1507  | 994                            | 258                                       | 370   | 6.7                           | MBMG                 | 90                     | 211TPCK         | Yes                            | 76M1470       |
| 89                 | .057           | .2              | 7.61 | 8           | 3988  | 2770                           | 460                                       | 935   | 16.7                          | MBMG                 | 58                     | 211TPCK         | Yes                            | 76M1476       |
| 96A                | 234.946        | .7              | 7.81 | 9           | 28130                                       | 32340                          | 15500                                     | 853   | 16.5                          | MBMG                 | 54                     | 112TILL         | Yes                            | 76M0246       |
| 96B                | 2.169          | .3              | 7.66 | 7           | 1792  | 1648                           | 895                                       | 150   | 2.8                           | MBMG                 | 34                     | 112TILL         | Yes                            | 76M0245       |
| 97                 | 4.07           | <.1             | 7.46 | 16          | 5824  | 4619                           | 677                                       | 778   | 21.4                          | MBMG                 | 108                    | 211VRGL         | Yes                            | 76M1474       |
| 110                | 19.43          | .2              | 7.42 | 9.0         | 3009  | 2390                           | 1470                                      | 419   | 2.6                           | MBMG                 |                        | 211VRGL         | Yes                            | 76M1473       |
| 114                | 19.32          | .4              | 7.89 | 12.0        | 1422  | 854                            | 83  | 467   | 14.8                          | MBMG                 | 90                     | 211TDMC         | Yes                            | 76M1472       |
| 136                | <.023          | .4              | 9.80 | 14          | 766   | 422                            | 3   | 372   | 47.5                          | MBMG                 | 12                     | 211TMDCC        | Yes                            | 76M1624       |
| 139                | <.022          | 2.9             | 8.82 | 14          | 1256  | 766                            | 6   | 667   | 59.8                          | MBMG                 | 135                    | 211TPCK         | Yes                            | 76M1623       |
| 142                | 3.343          | .9              | 8.10 | 11          | 2112  | 1519                           | 812                                       | 417   | 3.4                           | MBMG                 | 55                     | 211CLRD         | Yes                            | 76M1620       |
| 149                | <.022          | .9              | 8.72 | 21          | 1484  | 914                            | 6   | 838   | 70.2                          | MBMG                 | 480                    | 211VRGL         | Yes                            | 76M1463       |
| 150                | 4.62           | .4              | 7.95 | 9           | 4186  | 3089                           | 291                                       | 519   | 23.8                          | MBMG                 | 116                    | 211VRGL         | Yes                            | 76M1466       |
| 151                | .215           | 1.8             | 7.72 | 10          | 3012  | 2186                           | 502                                       | 498   | 10.9                          | MBMG                 | 168                    | 211VRGL         | Yes                            | 76M1458       |
| 152                | .610           | .4              | 8.25 | 8           | 5874  | 4405                           | 299                                       | 1250  | 35.7                          | MBMG                 | 115                    | 211VRGL         | Yes                            | 76M1487       |
| 153                | .520           | .7              |      | 7.8         |   |                                | 540                                       | 492   |                               | USGS                 | 117                    | 211VRGL         | No                             | 95M0005       |
| 154                | .158           | 1.3             |      |             |   |                                | 10  | 648   |                               | USGS                 | 170                    | 211VRGL         | No                             | 95M0002       |
| 155                |                |                 |      |             |   |                                | 366                                       | 379   |                               | USGS                 | 159                    | 211VRGL         | No                             | 54M0001       |
| 156                |                |                 |      |             |   |                                | 308                                       | 400   |                               | USGS                 | 174                    | 211VRGL         | No                             | 54M0002       |
| 157                |                | .2              |      | 7.8         |   |                                | 240                                       | 338   |                               | USGS                 | 156                    | 211VRGL         | No                             | 95M0007       |
| 158                |                | .1              |      |             |   |                                | 230                                       | 260   |                               | USGS                 | 150                    | 211VRGL         | No                             | 95M0003       |
| 159                |                | .2              |      | 7.8         |   |                                | 240                                       | 338   |                               | USGS                 | 185                    |                 | No                             | 95M0039       |
| 160                | 2.395          | .4              |      |             |   |                                | 425                                       | 280   |                               | USGS                 |                        | 211TMDCC        | No                             | 95M0023       |
| 161                |                |                 |      | 7.8         |   |                                | 230                                       | 350   |                               | USGS                 | 225                    | 211VRGL         | No                             | 95M0004       |
| 162                | .181           |                 |      | 8.3         | 1800  |                                | 275                                       | 363   |                               | USGS                 |                        | 211VRGL         | No                             | 95M0033       |
| 163                | 5.29           | .5              |      |             | 1810  |                                | 85  | 260   |                               | USGS                 | 120                    |                 | No                             | 95M0035       |
| 164                | .5             |                 |      | 8.3         | 900   |                                | 332                                       | 220   |                               | USGS                 | 150                    | 211VRGL         | No                             | 64M0008       |
| 165                | .169           | <.1             | 7.80 | 1           | 126   | 73                             | 66  | 84  | 0.1                           | USFS                 |                        |                 | No                             | 76M1684       |
| 168                | .361           | <.1             | 8.19 | 4           | 214   | 119                            | 116                                       | 110   |                               | USFS                 |                        |                 | No                             | 76M1686       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Trect | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sum<br>(Mg) | Sodium<br>(Na) | Potas-<br>sum<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|-----------------------|----------------|----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 167                | 27N 17W 02 CBCB           | 04 11 77                        | Creek  | 11.3            | 6.7                   | 1.5            | .4                   | .03          | <.01                   | 5.0                           | 86                                      |                                      | 1.6              | .3                            |
| 168                | 36N 05W 05 DD             | 10 23 64                        | Well   | 12              | 1                     | 870*           |                      |              |                        |                               | 706                                     | 12                                   | 34               | 1225                          |
| 169                | 32N 05W 28 DC             | 10 23 65                        | Well   | 42              | 22                    | 64*            |                      | .10          |                        |                               | 214                                     | 6                                    | 12               | 125                           |
| 170                | 33N 06W 10 BB             | 03 17 37                        | Well   |                 |                       | 548*           |                      |              |                        |                               | 600                                     | 50                                   | 116              | 436                           |
| 171                | 32N 05W 01 AC             |                                 | Well   |                 |                       |                |                      |              |                        |                               |   |                                      | 24               | 4960                          |
| 172                | 33N 05W 25 CB             |                                 | Well   | 200             |                       | 6641*          |                      |              |                        |                               | 720                                     |                                      | 10150            | 33                            |
| 173                | 34N 05W 31 CD             | 10 26 65                        | Well   | 40              | 28                    | 370*           |                      | 5.00         |                        |                               | 580                                     |                                      | 41               | 465                           |
| 174                | 34N 05W 11 BA             |                                 | Well   | 35              |                       | 4269*          |                      |              |                        |                               | 1985                                    |                                      | 5667             |                               |
| 175                | 36N 05W 04 DB             |                                 | Well   | 73              | 30                    | 2866*          |                      |              |                        |                               | 6750                                    |                                      | 1296             |                               |
| 177                | 37N 03W 04 AD             | 08 04 65                        | Well   | 88              | 64                    | 607*           |                      |              |                        |                               | 387                                     |                                      | 19               | 820                           |
| 178                | 37N 04W 12 DB             | 10 20 65                        | Well   | 75              | 43                    | 228*           |                      |              |                        |                               | 370                                     | 36                                   | 46               | 605                           |
| 179                | 36N 04W 11 DD             |                                 | Well   | 64              | 28                    | 307*           |                      | 2.20         |                        |                               | 442                                     |                                      | 6                | 546                           |
| 180                | 34N 05W 20 BB             | 10 08 65                        | Well   | 90              | 46                    | 191*           |                      | 1.32         |                        |                               | 464                                     |                                      | 15               | 378                           |



## of Selected Waters (Con't.)

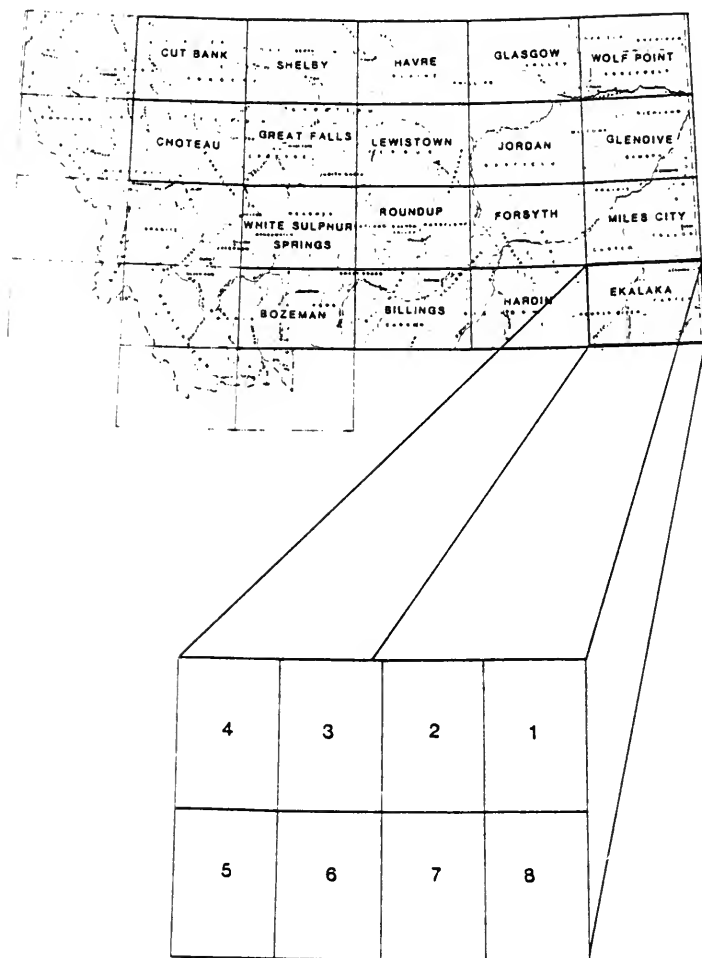
| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluor-<br>ide<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(umho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 167                | .120           | <.1                  | 7.66      | 2                    | 104   | 59                             | 56  | 53  | 0.1                           | USFS                 |                        |                 | No                            | 76M1685       |
| 168                |                |                      |           |                      | 3000  |                                | 36  | 598   |                               | USGS                 | 327                    | 211VRGL         | No                            | 64M0006       |
| 169                |                | .4                   |           | 8.3                  |   |                                | 195                                       | 186   |                               | USGS                 |                        |                 | No                            | 65M0030       |
| 170                |                |                      |           | 6.1                  |   |                                |   | 575   |                               | USGS                 |                        | 211TMDC         | No                            | 37M0001       |
| 171                |                |                      |           |                      |   |                                | 400                                       |   |                               | USGS                 |                        | 211TMDC         | No                            | 00M0006       |
| 172                |                |                      |           |                      |   |                                | 499                                       | 591   |                               | USGS                 |                        | 211CLRD         | No                            | 00M0008       |
| 173                |                | 1.2                  |           |                      |   |                                | 215                                       | 476   |                               | USGS                 | 164                    | 211VRGL         | No                            | 65M0011       |
| 174                |                |                      |           |                      |   |                                | 87  | 138C  |                               | USGS                 |                        | 211TMDC         | No                            | 00M0008       |
| 175                |                |                      |           |                      |   |                                | 306                                       | 471C  |                               | USGS                 |                        | 211TMDC         | No                            | 00M0007       |
| 177                | .249           | .4                   |           |                      | 1780  |                                | 485                                       | 317   |                               | USGS                 | 188                    | 211VRGL         | No                            | 65M0006       |
| 178                | 4.292          | .8                   |           | 8.9                  |   |                                | 363                                       | 364   |                               | USGS                 | 50                     | 211VLCC         | No                            | 65M0008       |
| 178                | .181           |                      |           | 8.9                  | 1600  |                                | 275                                       | 363   |                               | USGS                 |                        | 211VRGL         | No                            | 00M0010       |
| 180                |                | .4                   |           | 8.3                  |   |                                | 410                                       | 406   |                               | USGS                 | 124                    | 211VRGL         | No                            | 65M0012       |

## CUT BANK 1' x 2' Sheet

## Trace Elements Analytes Sheet

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Al.<br>minum<br>mg/l | Anti-<br>mony<br>mg/l | Ar.<br>gentic<br>fluor<br>mg/l | Beryl-<br>lum<br>mg/l | Boron<br>mg/l | Cad-<br>mium<br>mg/l | Copper<br>mg/l | Lead<br>mg/l | Lith-<br>ium<br>mg/l | Nickel<br>mg/l | Phosphate<br>Total<br>mg/l | Selenium<br>mg/l | Silver<br>mg/l | Stron-<br>tium<br>mg/l | Tin<br>mg/l | Zinc<br>mg/l | Lab.<br>number |         |
|--------------------|---------------------------|----------------------|-----------------------|--------------------------------|-----------------------|---------------|----------------------|----------------|--------------|----------------------|----------------|----------------------------|------------------|----------------|------------------------|-------------|--------------|----------------|---------|
| 11                 | 36N 05W 09 EC             | .08                  | <2                    | <2.0                           | <2.0                  | 98            | <.01                 | <.01           | .05          | .04                  | <3             | .03                        | .013             | <2.0           | 4.0                    | .13         | .70          | 76M1455        |         |
| 25                 | 36N 05W 33 C8BC           | .07                  | <2                    | <2.0                           | 2.7                   | <.01          | <.01                 | <.01           | .06          | .06                  | .42            | .03                        | .019             | <2.0           | 8.8                    | .18         | .17          | 76M1454        |         |
| 33                 | 35N 05W 05 D0DD           | .08                  | <2                    | 2.4                            | 1.3                   | <.01          | <.01                 | <.01           | <.05         | .07                  | <3             | .02                        | .018             | 20.0           | .66                    | .07         | .25          | 76M1453        |         |
| 84                 | 34N 07W 06 ABAA           | <.05                 | <2                    | <2.0                           | <5.0                  | 10            | <.01                 | <.01           | .02          | <.05                 | .05            | .02                        | .065             | 2.1            | 1.24                   | .10         | .05          | 76M0234        |         |
| 81                 | 31N 06W 34 CCC            | <.05                 | <2                    | <2.0                           | <5.0                  | .43           | <.01                 | <.01           | <.01         | <.05                 | .03            | .01                        | .023             | 3.8            | 1.25                   | .13         | .04          | 76M1471        |         |
| 84                 | 30N 08W 06 C0BB           | .09                  | <2                    | <2.0                           | <2.0                  | .42           | <.01                 | <.01           | .09          | .07                  | <3             | .04                        | .018             | 28.5           | 3.99                   | .25         | .04          | 76M1469        |         |
| 88                 | 30N 04W 10 AB8B           | .06                  | <2                    | 2.7                            | .77                   | .37           | <.01                 | <.01           | <.05         | .27                  | <3             | .11                        | .016             | <2.0           | 1.76                   | .25         | .10          | 76M1470        |         |
| 89                 | 30N 04W 17 ABAA           | .15                  | <2                    | <2.0                           | <5.0                  | .8            | .07                  | .08            | .48          | .67                  | .83            | <3                         | .38              | .065           | 740                    | 3.43        | .23          | .01            | 76M1476 |
| 96B                | 28N 03W 17 AB0B           | <.05                 | <2                    | <2.0                           | <5.0                  | .2            | <.01                 | <.01           | .03          | .05                  | .12            | .40                        | .03              | .178           | 22.0                   | 10.90       | .34          | .27            | 76M0246 |
| 87                 | 29N 04W 08 C0CD           | <.06                 | 2                     | <2.0                           | 1.8                   | <.01          | .04                  | <.05           | .31          | <3                   | .04            | .160                       | 3.8              | 7.1            | .16                    | .05         | .06          | 76M1474        |         |
| 110                | 28N 05W 22 CA             | .08                  | <2                    | <2.0                           | .85                   | <.01          | .01                  | .08            | .07          | <3                   | .05            | .016                       | 14.9             | 8.7            | .27                    | .01         | .06          | 76M1473        |         |
| 114                | 28N 05W 03 C              | .05                  | <2                    | <2.0                           | .56                   | <.01          | .02                  | <.05           | .02          | <3                   | .01            | .016                       | 6.8              | .32            | .09                    | .12         | .06          | 76M1472        |         |
| 138                | 27N 06W 13 C0D            | .17                  | <2                    | 11.7                           | .25                   | <.01          | <.01                 | <.05           | .04          | <3                   | <.01           | .059                       | <2.0             | <.01           | <.05                   | .02         | .06          | 76M1024        |         |
| 139                | 27N 06W 34 C0BC           | <.05                 | <2                    | <2.0                           | 1.0                   | <.01          | <.01                 | <.05           | .07          | <3                   | <.01           | .120                       | <2.0             | .07            | <.05                   | <.01        | .06          | 76M1023        |         |
| 142                | 26N 05W 13 C0BB           | <.05                 | <2                    | <2.0                           | .90                   | <.01          | .02                  | <.05           | .12          | <3                   | .01            | .108                       | 5.0              | 1.60           | .71                    | <1.7        | .06          | 76M1020        |         |
| 146                | 26N 05W 13 AD             | .06                  | <2                    | 3.0                            | .87                   | <.01          | <.01                 | <.05           | .05          | <3                   | .01            | .095                       | <2.0             | .04            | <.05                   | .03         | .06          | 76M1463        |         |
| 150                | 37N 04W 02DC              | .07                  | <2                    | <2.0                           | 1.0                   | <.01          | <.01                 | <.05           | .12          | <3                   | .02            | .033                       | 8.5              | 3.14           | .08                    | .54         | .06          | 76M1456        |         |
| 151                | 37N 03W 30 ACC            | .08                  | <2                    | <2.0                           | 1.3                   | <.01          | <.01                 | <.05           | .09          | <3                   | .01            | .010                       | <2.0             | 3.89           | .18                    | 2.50        | .06          | 76M1458        |         |
| 152                | 37N 03W 21 ACB            | <.06                 | 2                     | <2.0                           | 1.7                   | <.01          | .01                  | <.05           | .18          | <3                   | .03            | .010                       | <2.0             | 3.37           | .12                    | .45         | .06          | 76M1457        |         |

# LOCATION BASE MAP

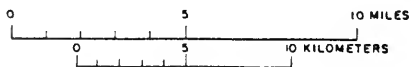
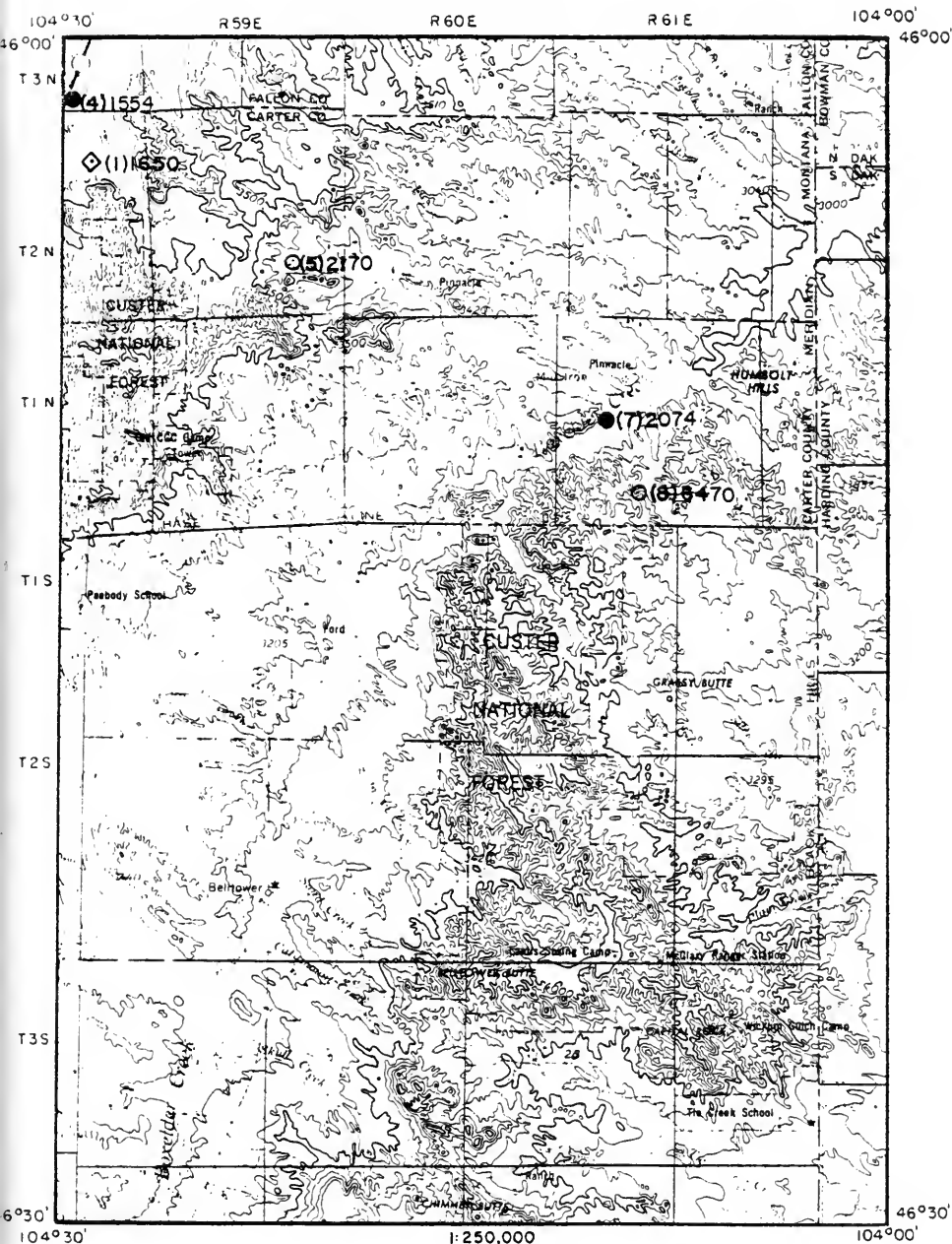


EKALAKA 1° x 2° SHEET



# SPECIFIC CONDUCTANCE SURVEY

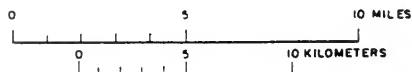
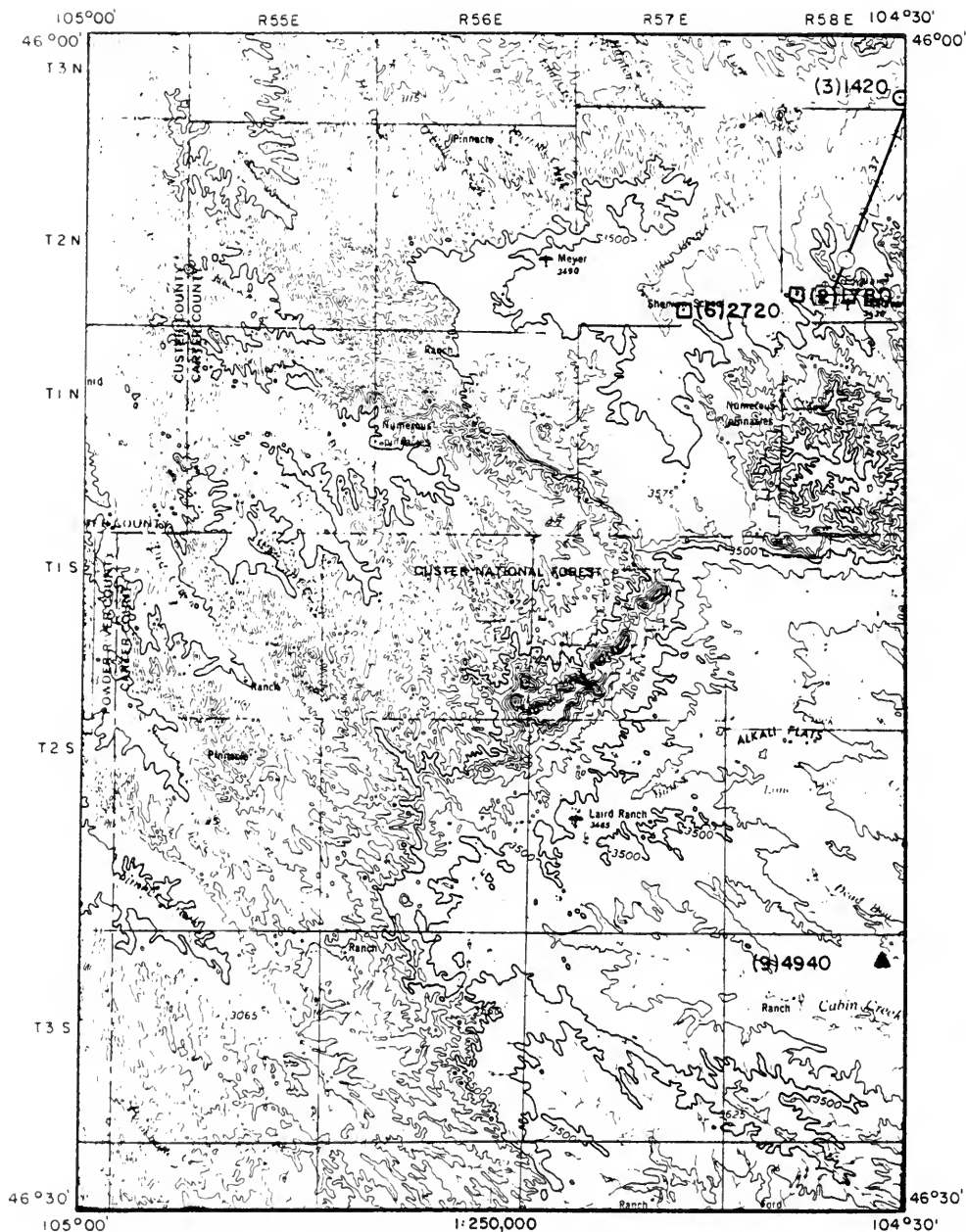
EKALAKA 1



CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

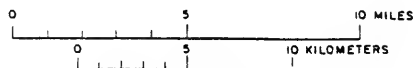
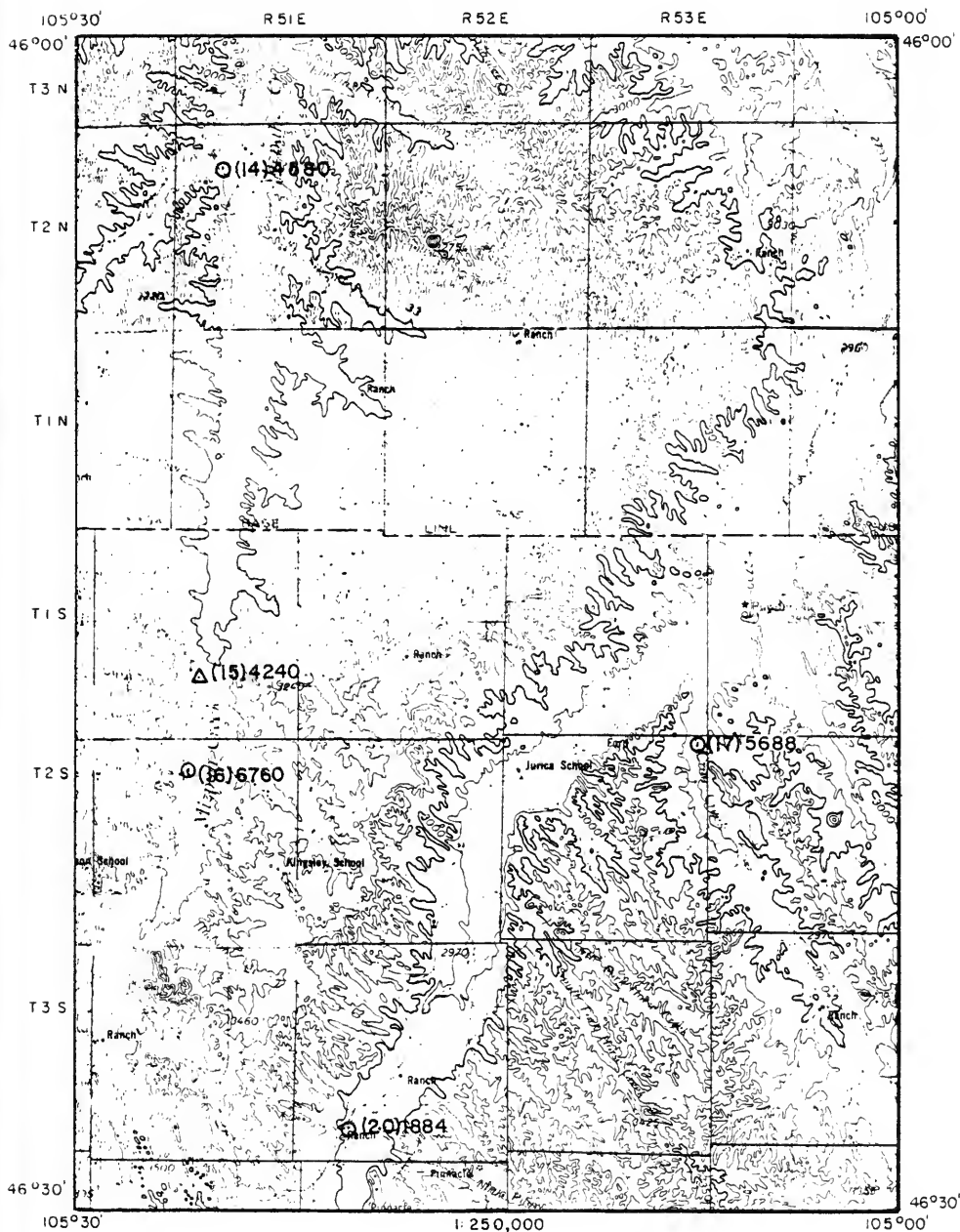
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CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

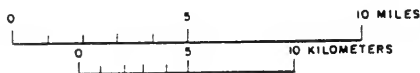
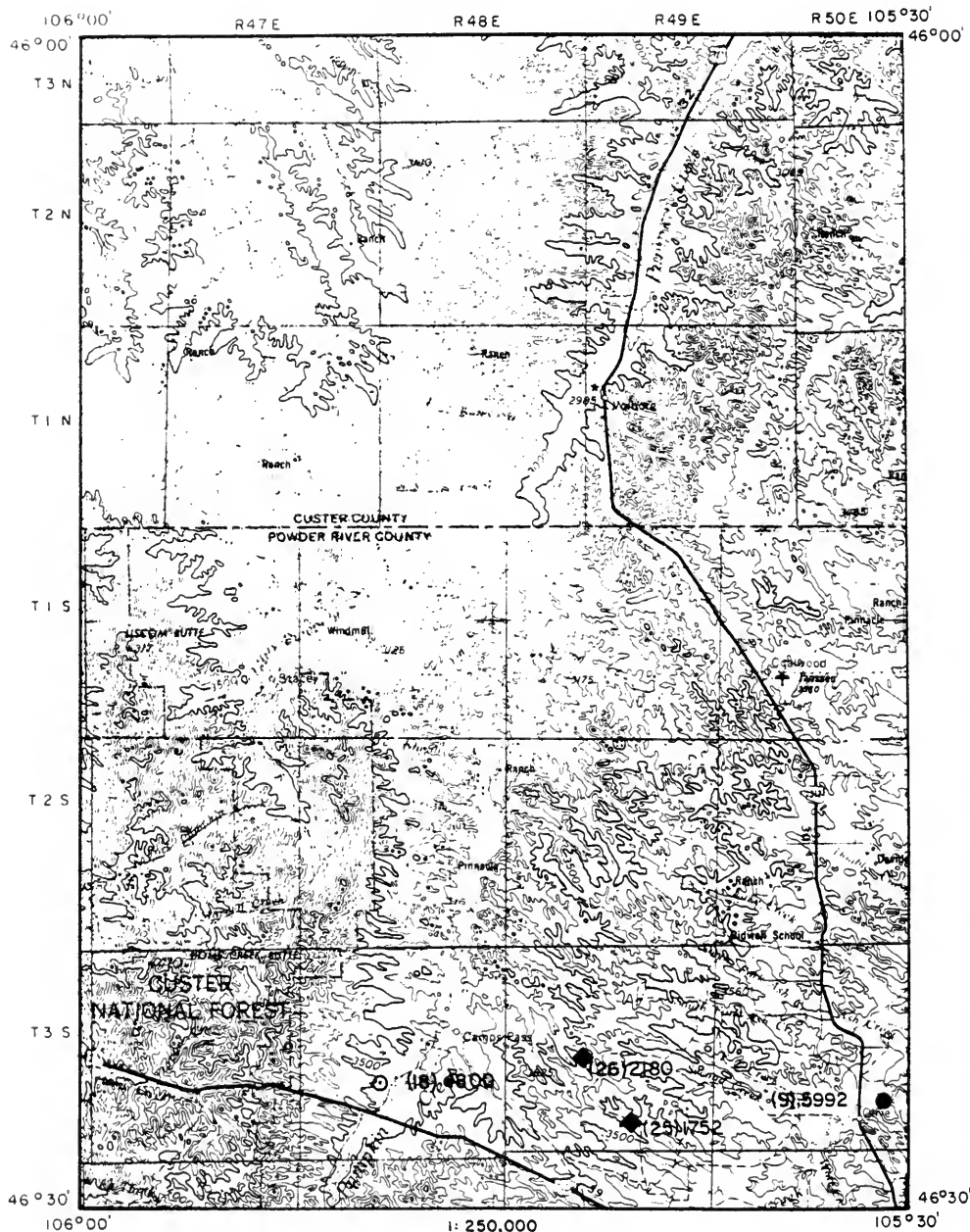
EKALAKA 3



CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

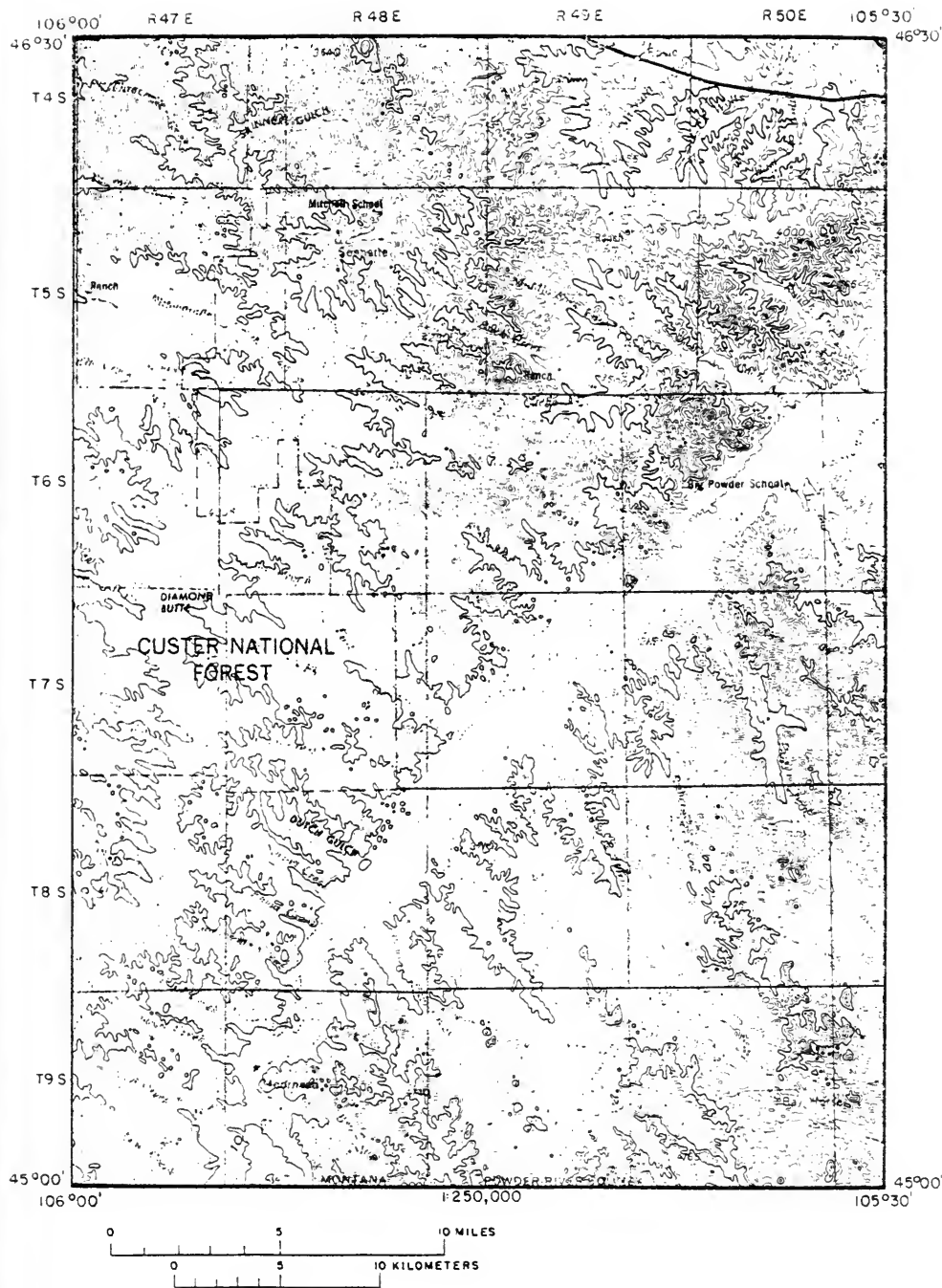
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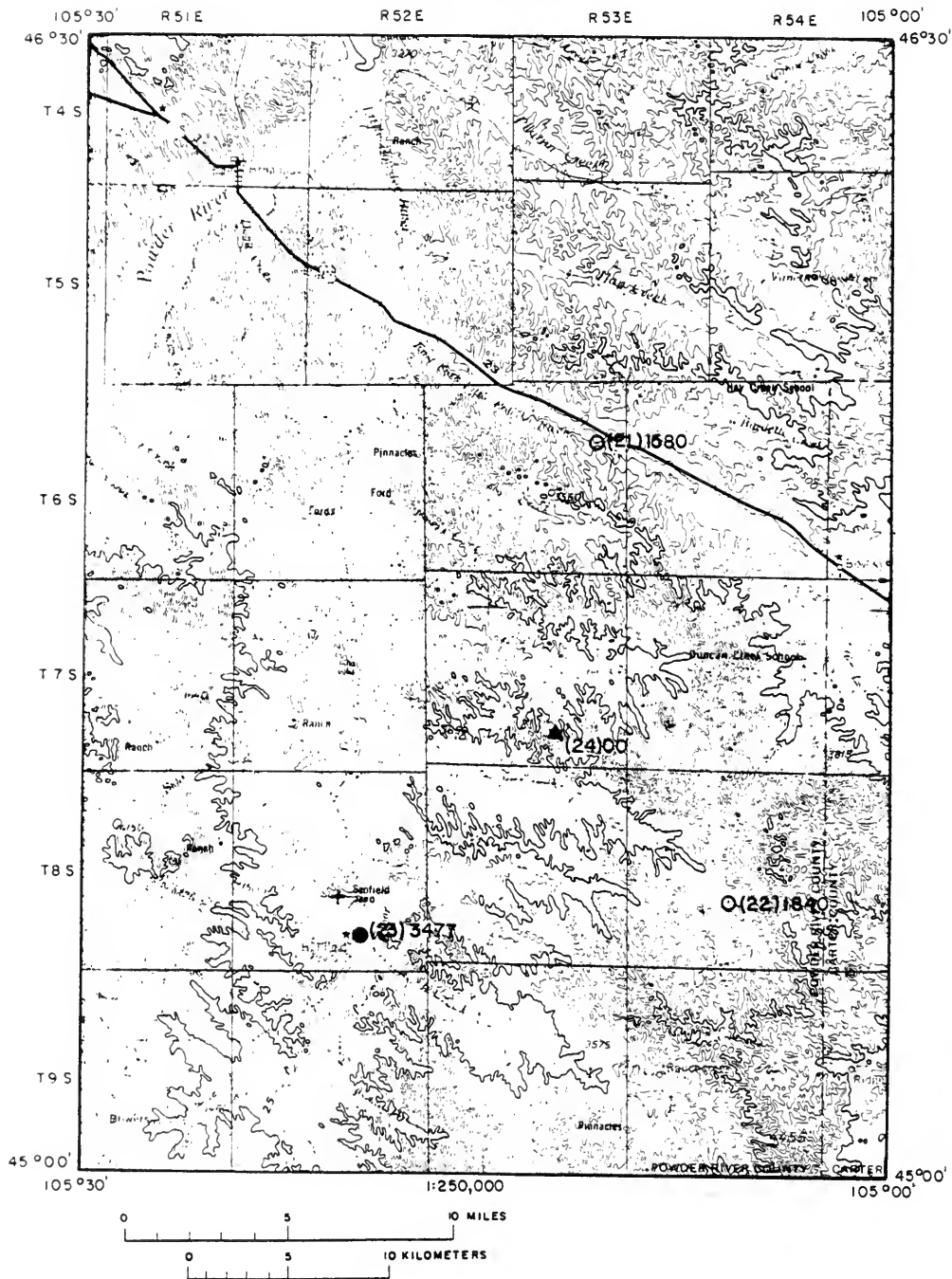


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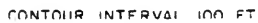


# SPECIFIC CONDUCTANCE SURVEY

EKALAKA 6

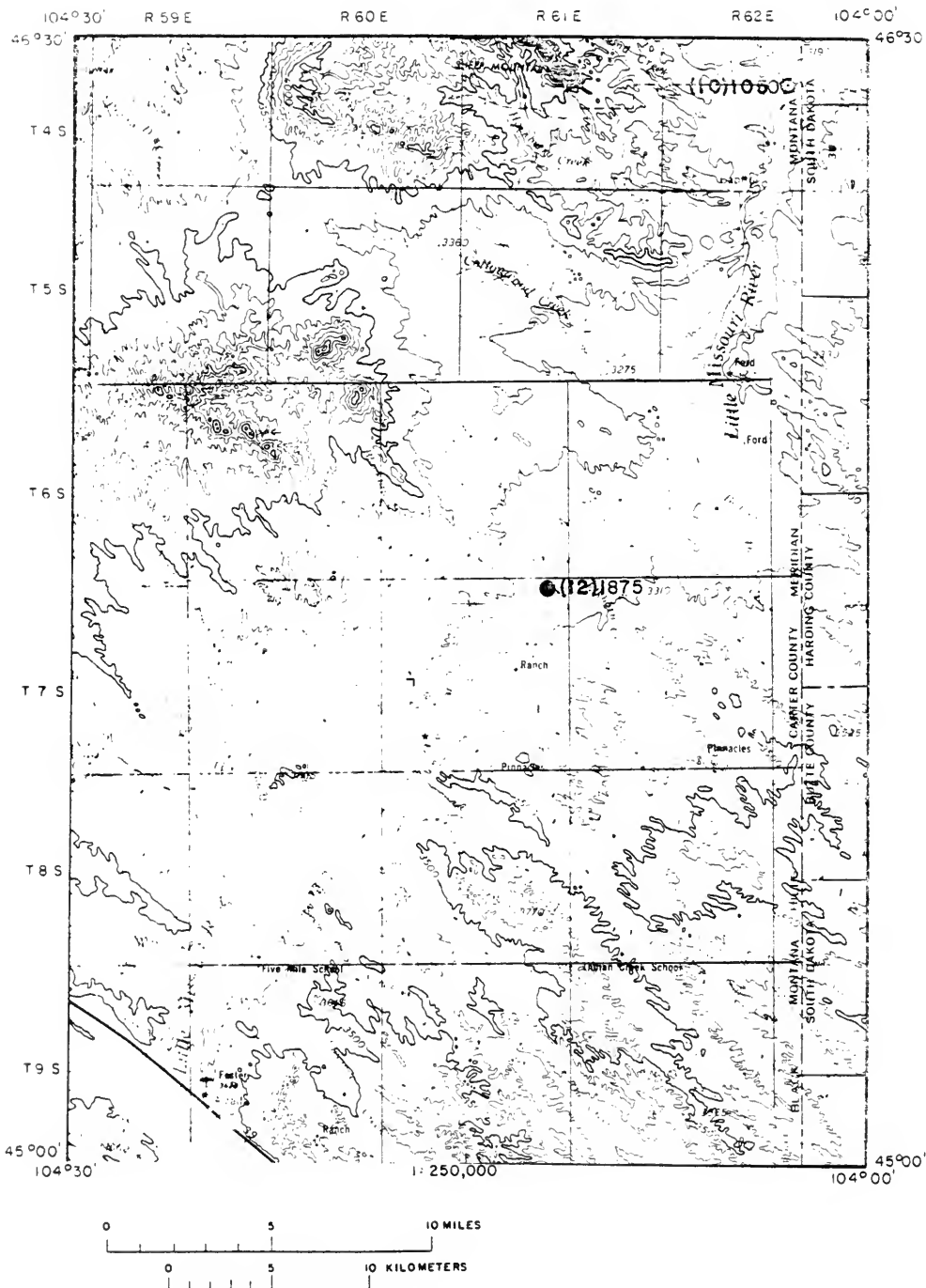


EKALAKA 7



SPECIFIC CONDUCTANCE SURVEY

EKALAKA 6



## EKALAKA 1" x 2" Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref<br>no | Field<br>number | County       | Location<br>T R Sec Tact | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E-estimated<br>M-measured | Site description                         | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Well<br>level depth<br>(ft.) | Aquifer<br>code | Owner, agency |
|------------------|-----------------|--------------|--------------------------|---------------------------------|-----------|--|--|--------------------------------------|----------------------|-----------------|-------------------|------------------------------|-----------------|---------------|
| 1                | WQB2            | Carter       | 02N 58E 11               | 10 10 75                        | Spring    |  | Used for stock, alkali covers area below | 1650                                 | no                   | no              |                   |                              |                 |               |
| 2                | WQB1            | Carter       | 02N 58E 31               | 10 10 75                        | Reservoir |  | 0.5 mile N of 5 acre seep                | 1780                                 | no                   | no              |                   |                              |                 |               |
| 3                | WQB3            | Carter       | 03N 58E 34               | 10 10 76                        | Creek     | 3 cfs (E)                                  | Little Beaver Creek                      | 1420                                 | no                   | no              |                   |                              |                 |               |
| 4                | WQB5            | Carter       | 03N 58E 34 DAB           | 10 15 76                        | Creek     | 3 cfs (E)                                  | Little Beaver Creek at highway           | 1554                                 | yes                  | yes             |                   |                              |                 |               |
| 5                | WQB8            | Carter       | 02N 58E 26 CAA           | 10 15 76                        | Creek     | 1 cfs (E)                                  | Coal Creek                               | 2170                                 | no                   | no              |                   |                              |                 |               |
| 6                | WQB6            | Carter       | 02N 57E 34 CCC           | 10 15 76                        | Pond      | no flow                                    | Near junked cars                         | 2720                                 | no                   | no              |                   |                              |                 |               |
| 7                | WQB9            | Carter       | 01N 61E 17 CDD           | 10 15 76                        | Creek     | 2 cfs (E)                                  | Box Elder Creek at highway               | 2074                                 | yes                  | yes             |                   |                              |                 |               |
| 8                | WQB10           | Carter       | 03N 58E 02 CAA           | 10 15 76                        | Creek     | 2 cfs (E)                                  | Box Elder Creek at edge of farm          | 2074                                 | yes                  | yes             |                   |                              |                 |               |
| 9                | 6440025         | Carter       | 03S 58E 02 DC            | 06 29 64                        | Well      | no flow                                    | 21.0 miles NE of Ekalaka                 | 4940                                 | yes                  | yes             | 3400              |                              | 331CHLS         |               |
| 10               | WQB11           | Carter       | 04S 62E 22 AAB           | 10 16 76                        | Creek     | 0.3 cfs (E)                                | Tee Creek                                | 1050                                 | no                   | no              |                   |                              |                 |               |
| 11               | 5040001         | Carter       | 06S 57E 31 AB            | 07 10 50                        | Well      |  | 36 miles E of Broadus                    | 2820                                 | yes                  | yes             | 3469              |                              | 337LDGP         |               |
| 12               | WQB12           | Carter       | 07S 61E 04 BDB           | 10 16 76                        | River     | 6 cfs (E)                                  | Little Missouri River                    | 1875                                 | yes                  | yes             |                   |                              |                 |               |
| 13               | WQB13           | Carter       | 09S 56E 08 CCB           | 10 16 76                        | Creek     | 0.2 cfs (E)                                | North Fork Thompson Creek                | 3110                                 | no                   | no              |                   |                              |                 |               |
| 14               | WQB1            | Carter       | 02N 51E 08               | 10 15 75                        | Stream    | 10 gpm (E)                                 | Sand Creek                               | 4580                                 | yes                  | yes             | 4                 |                              |                 |               |
| 15               | WQB10           | Powder River | 01S 61E 27 BCB           | 10 19 76                        | Well      | 1 gpm (E)                                  | Near Mapah, pumped by windmill           | 4240                                 | yes                  | yes             |                   |                              |                 |               |
| 16               | WQB9            | Powder River | 02S 51E 04 DDC           | 10 19 76                        | Creek     | no flow                                    | Mapah                                    | 5760                                 | no                   | no              |                   |                              |                 |               |
| 17               | WQB4            | Powder River | 02S 53E 01 ACA           | 10 17 76                        | Creek     | 0.2 cfs (E)                                | Crow Creek                               | 5568                                 | yes                  | yes             |                   |                              |                 |               |
| 18               | WQB6            | Powder River | 03S 48E 21 CDD           | 10 19 78                        | Creek     | 0.2 cfs (E)                                | Pumpkin Creek                            | 4800                                 | no                   | no              |                   |                              |                 |               |
| 19               | WQB8            | Powder River | 03S 50E 26 DDB           | 10 19 76                        | Creek     | no flow                                    | Mapah Creek at highway                   | 6892                                 | yes                  | yes             |                   |                              |                 |               |
| 20               | WQB7            | Powder River | 03S 52E 32 BDA           | 10 19 76                        | River     | 18 cfs (E)                                 | Powder River                             | 1884                                 | yes                  | yes             |                   |                              |                 |               |
| 21               | WQB3            | Powder River | 06S 53E 12 CCC           | 10 17 76                        | Creek     | 2 cfs (E)                                  | East Fork Creek                          | 1560                                 | no                   | no              |                   |                              |                 |               |
| 22               | WQB2            | Powder River | 06S 54E 12 CCC           | 10 17 76                        | Creek     | 1 cfs (E)                                  | Belle Creek                              | 1540                                 | no                   | no              |                   |                              |                 |               |
| 23               | WQB1            | Powder River | 03S 53E 27 CCB           | 10 15 76                        | Creek     | 3 cfs (E)                                  | Box Elder Creek                          | 3477                                 | yes                  | yes             |                   |                              |                 |               |
| 24               | WQB0032         | Powder River | 03S 53E 24 CCC           | 06 03 66                        | Well      | 15 miles SW of Boxer                       |  | 3235                                 | 128                  | 182             | 126FRUN           |                              | Woodluff Harry  |               |
| 25               | 7641918         | Powder River | 03S 49E 34 ABC           | 06 08 77                        | Spring    | 2 gpm (E)                                  | Leslie Creek Spring                      | 1752                                 | 13.7                 | yes             | 3407              |                              | 1261GRV         | Alderman, C   |
| 26               | 7641916         | Powder River | 03S 49E 21 BCC           | 06 08 77                        | Spring    |  |  | 2181                                 | 20.1                 | yes             | 3474              |                              | 1261GRV         | Aye, E.       |

## EKALAKA

## Chemical Analyses

| Map<br>ref.<br>no. | Location |     |    | Collection<br>date |    |    | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potase-<br>sum<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|----------|-----|----|--------------------|----|----|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 4                  | 03N      | 58E | 34 | DAB                | 10 | 15 | 76     | Creek           | 46.1                   | 37.6           | 260                   | 7.4          |                        |                               | 446                                     |                                      | 6.5              | 425                           |
| 7                  | 01N      | 61E | 17 | CDC                | 10 | 15 | 76     | Creek           | 34.9                   | 32.3           | 430                   | 7.7          |                        |                               | 587                                     | 6                                    | 6.8              | 625                           |
| 9                  | 03S      | 58E | 02 | DC                 | 06 | 29 | 64     | Well            | 390                    | 72             | 940*                  |              |                        |                               | 366                                     |                                      | 220              | 2200                          |
| 11                 | 05S      | 57E | 31 | AB                 | 07 | 10 | 50     | Well            | 540                    | 140            | 120*                  |              |                        |                               | 194                                     |                                      | 35               | 1900                          |
| 12                 | 07S      | 61E | 01 | BDB                | 10 | 16 | 76     | Creek           | 111                    | 65             | 235                   | 14           |                        |                               | 202                                     | 3                                    | 31               | 846                           |
| 14                 | 02N      | 51E | 08 |                    | 10 | 15 | 75     | Stream          | 20                     | 114            | 940                   | 8.7          |                        |                               | 429                                     | 103                                  | 11               | 1980                          |
| 15                 | 01S      | 51E | 27 | BCB                | 10 | 19 | 76     | Well            | 96                     | 96             | 855                   | 10           |                        |                               | 756                                     |                                      | 18               | 1795                          |
| 17                 | 02S      | 53E | 01 | ACA                | 10 | 17 | 76     | Creek           | 65                     | 102            | 1250                  | 13           |                        |                               | 532                                     | 6                                    | 21               | 2685                          |
| 19                 | 03S      | 50E | 26 | DOB                | 10 | 19 | 76     | Creek           | 422                    | 435            | 685                   | 32           |                        |                               | 529                                     |                                      | 88               | 3650                          |
| 20                 | 03S      | 52E | 32 | BDA                | 10 | 19 | 76     | River           | 100                    | 51             | 240                   | 7.9          |                        |                               | 206                                     | 6                                    | 132              | 565                           |
| 23                 | 08S      | 52E | 27 | DDA                | 10 | 16 | 76     | Creek           | 84                     | 62             | 645                   | 14           |                        |                               | 573                                     |                                      | 331              | 915                           |
| 24                 | 07S      | 53E | 26 | CC                 | 05 | 03 | 66     | Well            | 92                     | 127            | 210*                  | 25.4         |                        |                               | 578                                     |                                      | 8                | 413                           |
| 25                 | 03S      | 49E | 34 | ABCC               | 05 | 08 | 77     | Spring          | 69                     | 60             | 265                   | 6.6          | .54                    | .15                           | 9.0                                     | 663                                  | 8                | 434                           |
| 26                 | 03S      | 49E | 21 | BCCB               | 06 | 08 | 77     | Spring          | 113                    | 78             | 325                   | 7.7          | .01                    | .09                           | 12.6                                    | 715                                  | 8                | 682                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

1" x 2" Sheet

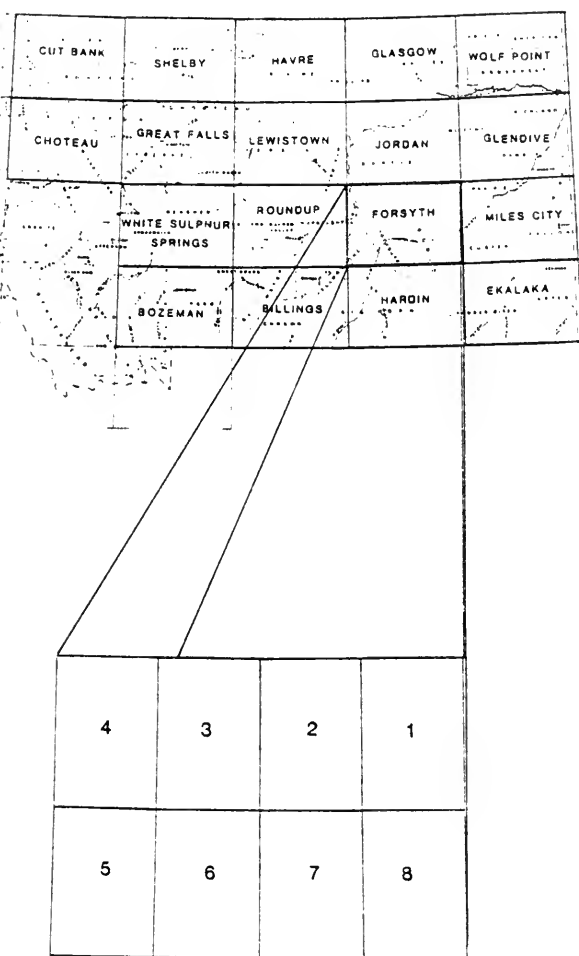
## of Selected Waters

| Well<br>ref. no. | Nitrate<br>(N) | Fluo-<br>ride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C | Lab<br>specific<br>conductance<br>( $\mu$ mho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as $\text{CaCO}_3$ | Total<br>alkalinity<br>as $\text{CaCO}_3$ | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|------------------|----------------|----------------------|-----------|---------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 4                | .02            |                      | 8.1       |                     | 1554  | 1002                           | 270                                     | 365                                       | 6.9                           | WQB                  |                        |                 | no                            | 76W2587       |
| 7                | .04            |                      | 8.3       |                     | 2074  | 1436                           | 220                                     | 499                                       | 12.6                          | WQB                  |                        |                 | no                            | 76W2584       |
| 9                |                |                      | 7.9       |                     |   |                                | 1270                                    | 300                                       |                               | Unknown              |                        | 331CRLS         | no                            | 64M0025       |
| 11               |                |                      | 7.1       |                     |   |                                | 1920                                    | 159                                       |                               | Unknown              |                        | 331LDGP         | no                            | 50M0001       |
| 12               | .04            |                      | 8.3       |                     | 1875  | 1403                           | 545                                     | 170                                       | 4.4                           | WQB                  |                        |                 | no                            | 76W2586       |
| 14               | .1             |                      | 9.4       |                     | 4580  | 3393                           | 520                                     | 532                                       | 17.9                          | WQB                  |                        |                 | no                            | 75W2100       |
| 15               | .11            |                      | 8.1       |                     | 4240  | 3241                           | 635                                     | 620                                       | 14.8                          | WQB                  |                        |                 | no                            | 78W2585       |
| 17               |                |                      | 8.3       |                     | 5688  | 4404                           | 580                                     | 446                                       | 22.6                          | WQB                  |                        |                 | no                            | 76W2580       |
| 19               | .06            |                      | 8.1       |                     | 5992  | 5573                           | 2840                                    | 434                                       | 5.6                           | WQB                  |                        |                 | no                            | 76W2583       |
| 20               | .27            |                      | 8.3       |                     | 1884  | 1205                           | 460                                     | 179                                       | 4.9                           | WQB                  |                        |                 | no                            | 76W2582       |
| 23               | .03            |                      | 8.1       |                     | 3477  | 2333                           | 465                                     | 470                                       | 13                            | WQB                  |                        |                 | no                            | 76W2579       |
| 24               | 2.1            | .5                   |           |                     |   |                                | 754                                     | 474                                       |                               | USGS                 | 125FRUN                |                 | no                            | 68M0032       |
| 25               | .255           | .2                   | 7.08      | 13.7                | 1752  | 1179                           | 419                                     | 544                                       | 5.6                           | USGS                 | 125TGRV                |                 | no                            | 76M1978       |
| 26               | .441           | .4                   | 7.63      | 20.1                | 2181  | 1579                           | 603                                     | 586                                       | 5.8                           | USGS                 | 125TGRV                |                 | no                            | 76M1976       |





# LOCATION BASE MAP

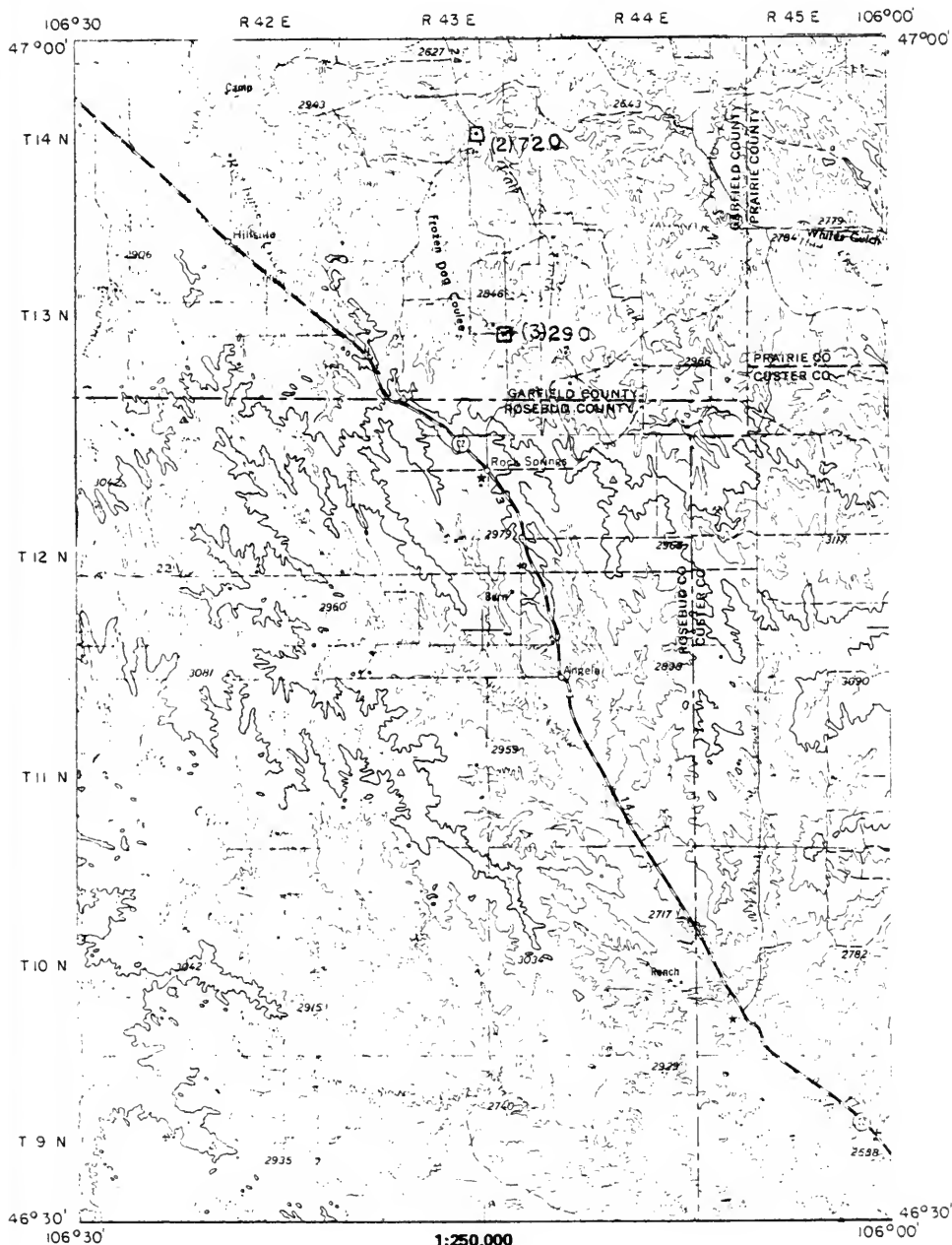


FORSYTH 1° x 2° SHEET

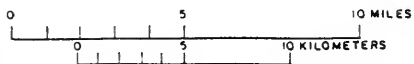


SPECIFIC CONDUCTANCE SURVEY

FORSYTH 1



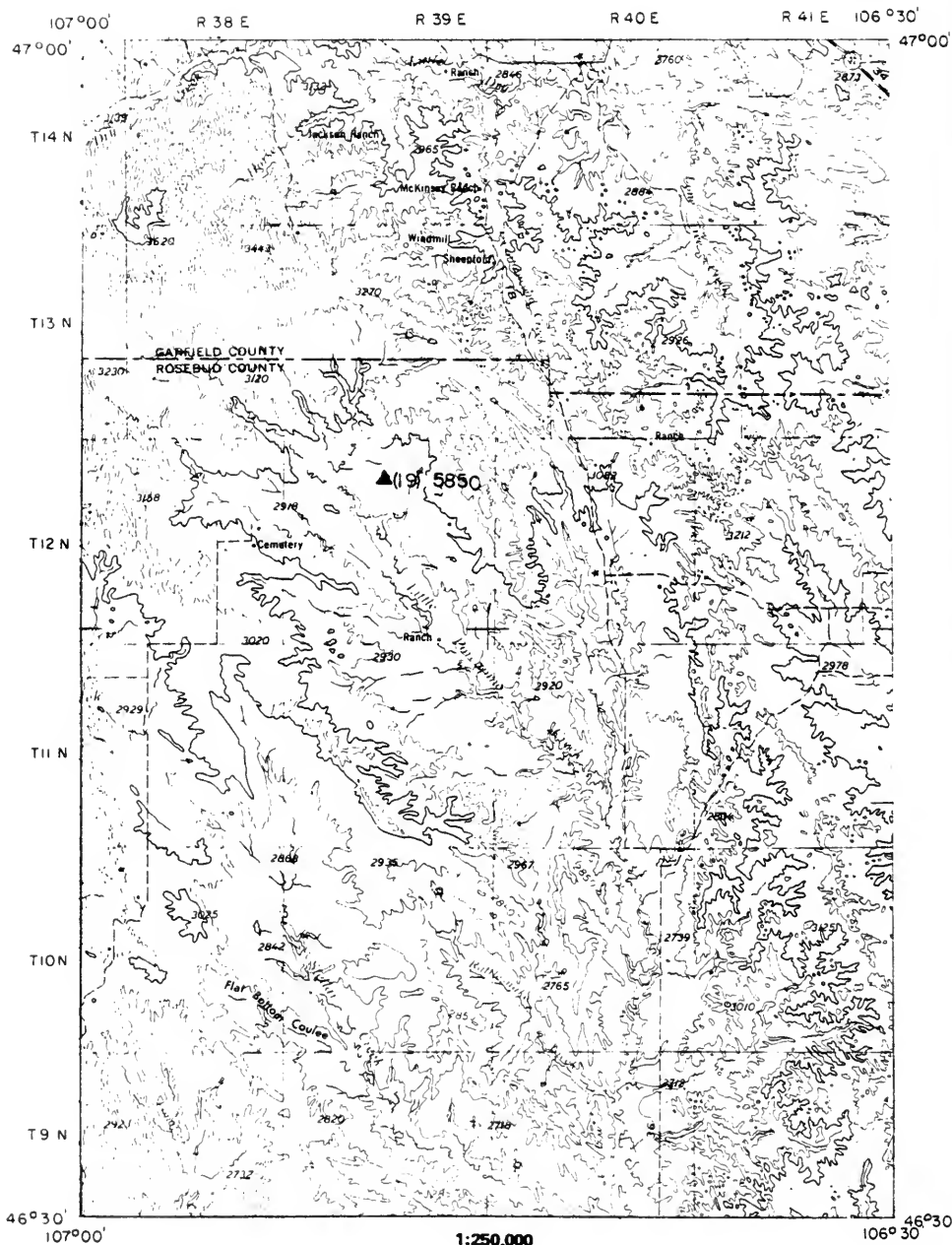
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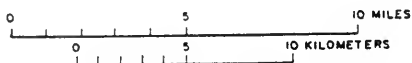
CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

FORSYTH 2



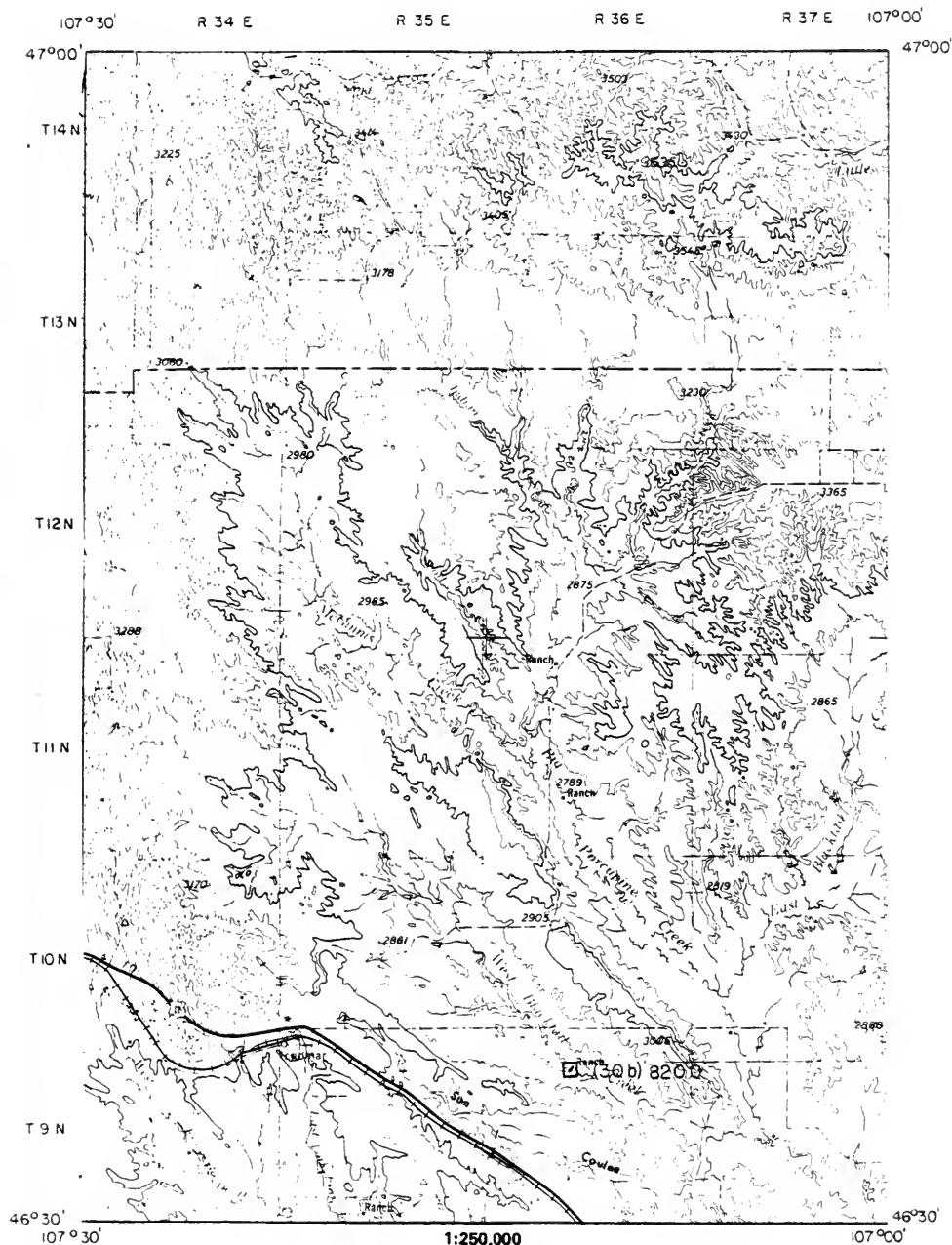
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CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

FORSYTH 3



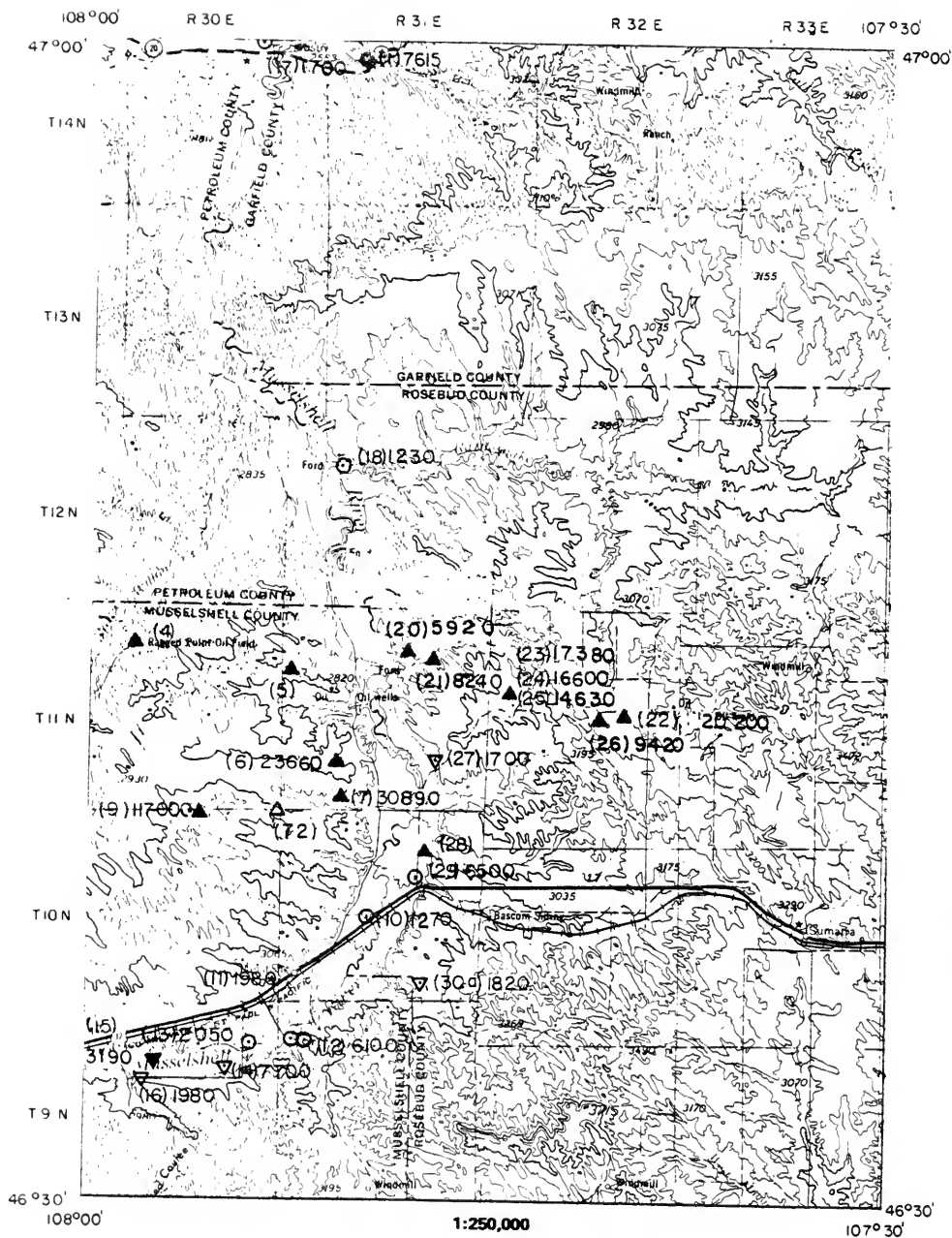
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CONTOUR INTERVAL 100 FT

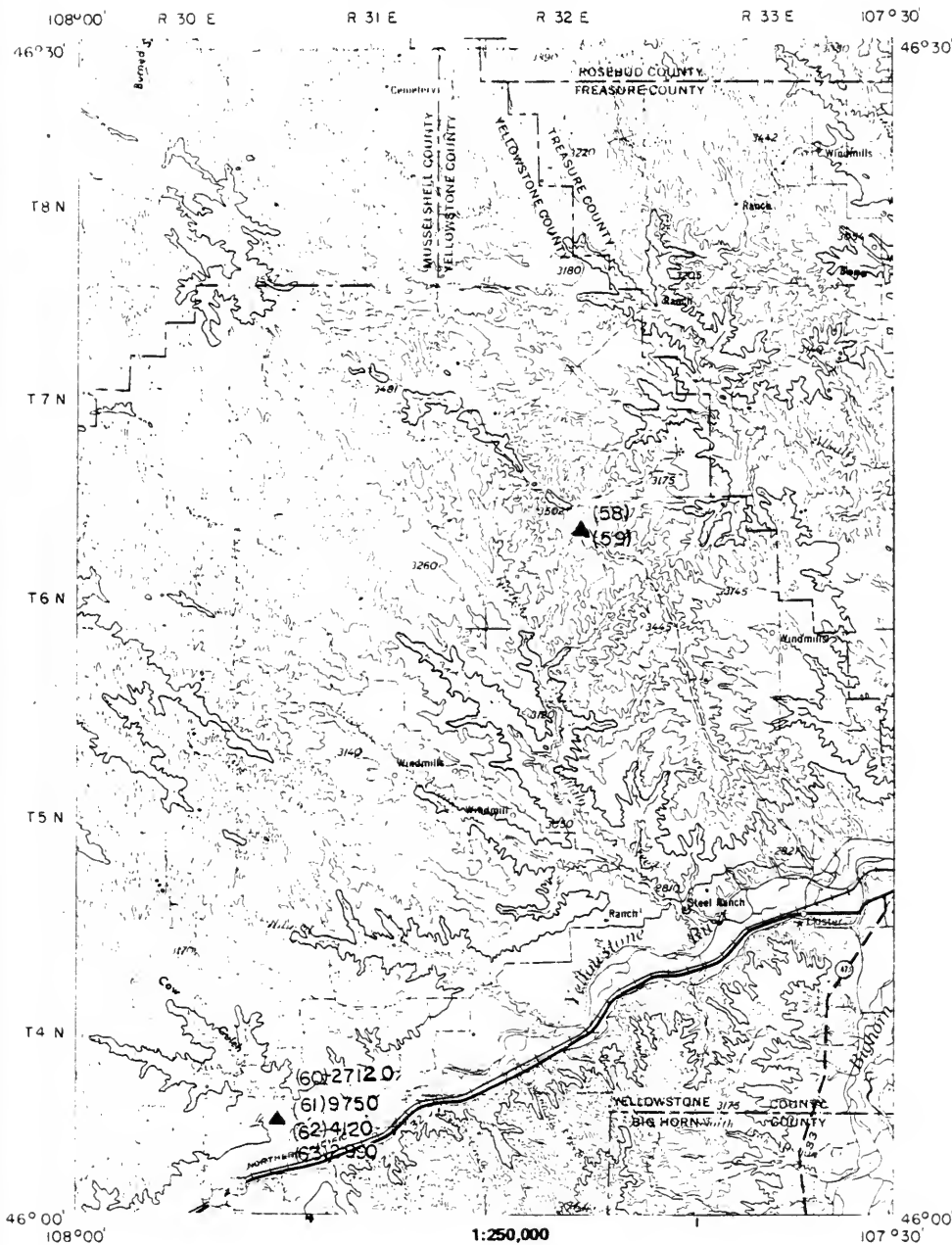
# SPECIFIC CONDUCTANCE SURVEY

FORSYTH 4

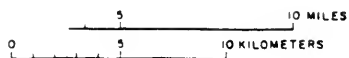


# SPECIFIC CONDUCTANCE SURVEY

FORSYTH 3



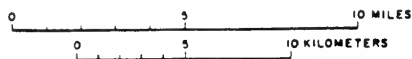
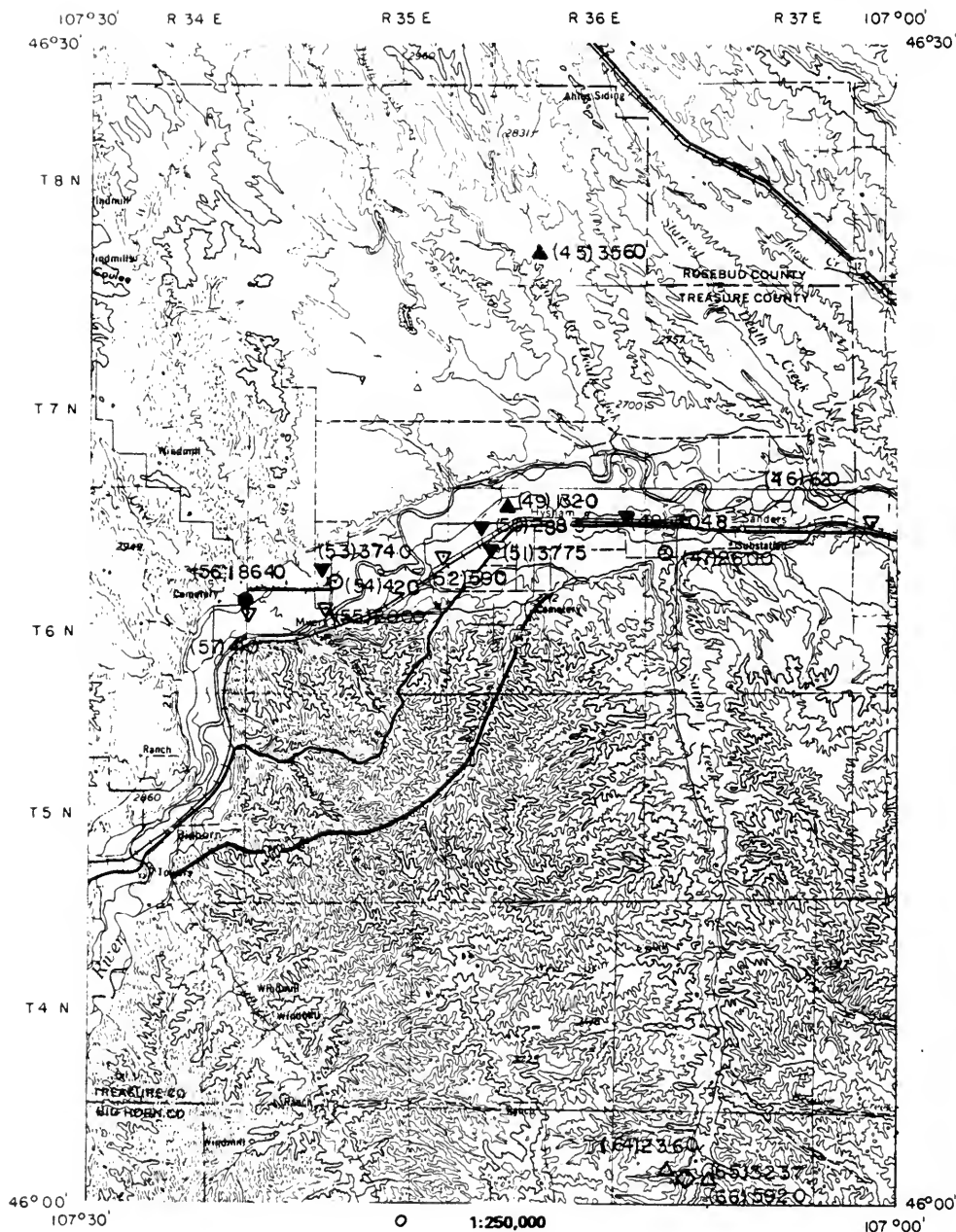
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CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

FORSYTH 6



CONTOUR INTERVAL 100 FT

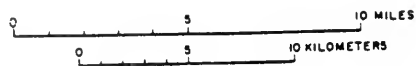
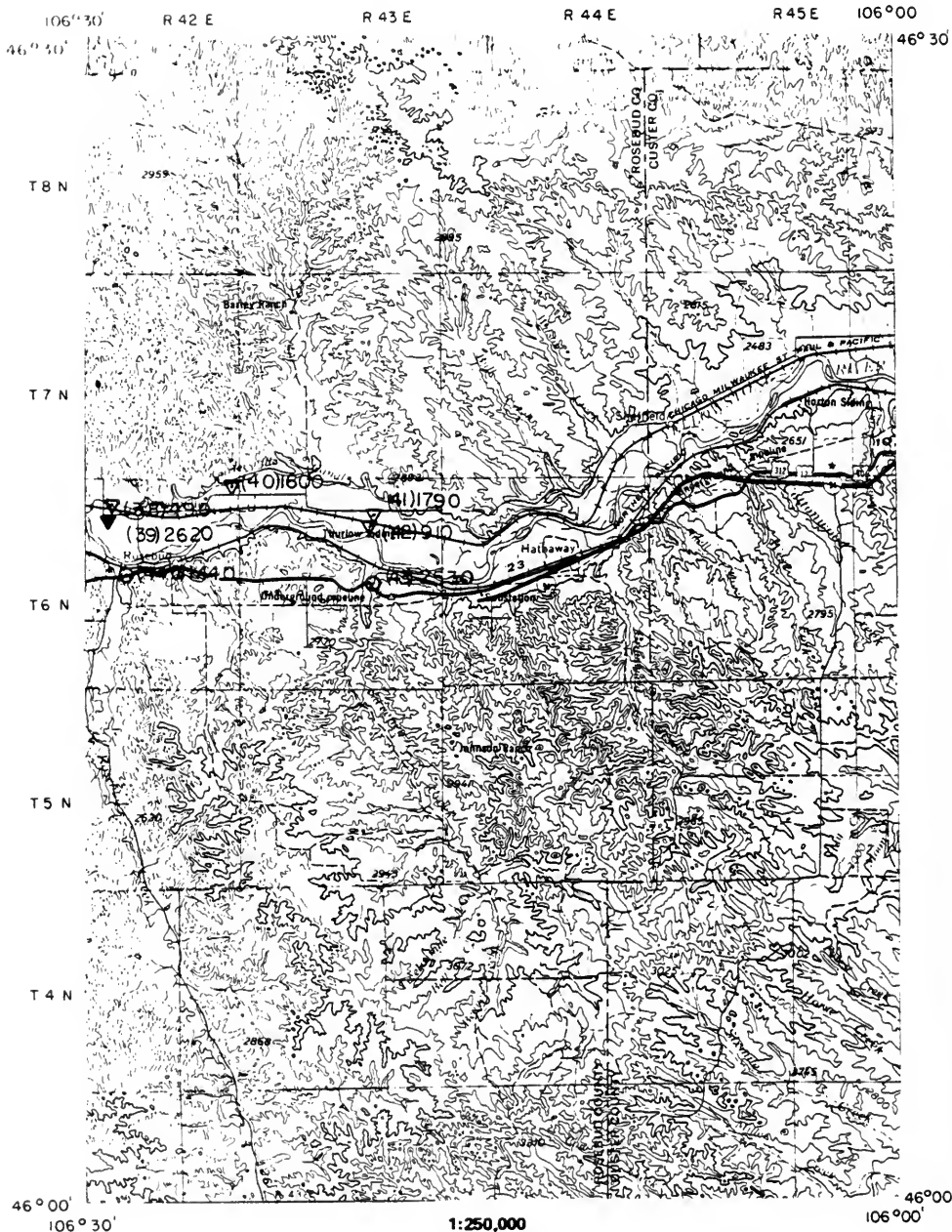


FORSYTH 7



# SPECIFIC CONDUCTANCE SURVEY

FORSYTH 8



CONTOUR INTERVAL 100 FT

FORSYTH 1' x 2' Sheet

Specific Conductivity Inventory Sheet

| Map<br>ref | Fedl<br>no | County   | Location<br>T R Sec Tract | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description  | Specific<br>conductivity<br>at 25 C | Field<br>temp.<br>C | Lab<br>analyst | Altitude<br>ft | Static<br>water<br>level<br>ft | Well<br>depth<br>ft | Aquifer<br>code    | Owner's name      |
|------------|------------|----------|---------------------------|--------------------|--|---|-------------------------------------|---------------------|----------------|----------------|--------------------------------|---------------------|--------------------|-------------------|
| 1          | WOB16      | Garfield | 14N 31E 07 DA             | 03 17 76 Creek     | 0.4 cfs (M)                                    | Sage Hen Creek near Hobbs                                 | 7615                                | 7.5                 | Yes            | 2690           |                                |                     |                    |                   |
| 2          | WOB13      | Garfield | 14N 43E 23 EC             | 08 02 75 Reservoir |  | Frozen Dog Coulee Reservoir                               | 720                                 |                     | no             | 2840           |                                |                     |                    |                   |
| 3          | WOB13      | Garfield | 14N 30E 08 BA             | 02 07 75 Reservoir |  | 10 miles N of Mestone                                     | 280                                 |                     | yes            | 2880           |                                |                     | 331KBBV<br>217LKOT |                   |
| 4          | WOB20      | Muskegon | 11N 30E 08 BA             | 10 25 55 Well      |  | feather Dome Oil Field Gremmet Coulee                     |                                     |                     | yes            | 3000           |                                |                     |                    |                   |
| 5          | 32AM004    | Muskegon | 11N 31E 07 CC             | 10 23 32 Well      |  |   |                                     |                     |                |                |                                |                     |                    |                   |
| 6          | 56AM0026   | Muskegon | 11N 31E 29 DB             | 05 02 58 Well      |  | 21 miles W of the Muskegon River                          | 23600                               |                     | yes            | 3030           |                                |                     | 320TYLR            |                   |
| 7          | 68AM0026   | Muskegon | 11N 31E 32 DB             | 09 20 68 Well      |  | 7.8 miles NE of Mestone                                   | 30880                               |                     | yes            | 2890           |                                |                     | 320TYLR            |                   |
| 8          | 61AM0077   | Muskegon | 10N 31E 11 BB             | 09 30 64 Well      |  | 1 mile SW of Orchard Coulee                               | 117000                              |                     | yes            | 2850           |                                |                     | 320TYLR            |                   |
| 9          | 54M0007    | Muskegon | 10N 30E 03 AB             | 05 26 54 Well      |  | 8 miles NW of Mestone                                     | 117000                              |                     | yes            | 2850           |                                |                     |                    |                   |
| 10         | WOB1       | Muskegon | 10N 31E 21 DB             | 09 08 75 River     | 100 cfs (E)                                    | Muskegon River at Mestone                                 | 1270                                | 23                  | yes            | 2860           |                                |                     |                    |                   |
| 11         | WOB18      | Muskegon | 09N 31E 07 BAD            | 10 20 76 Creek     | 0.5 cfs (E)                                    | Lost Horse Creek 2 miles S of Mestone                     | 1980                                |                     | no             | 3060           |                                |                     |                    |                   |
| 12         | WOB13      | Muskegon | 09N 31E 07 ADB            | 10 20 76 Creek     |  | Lost Horse Creek above Muskegon Canal                     | 6100                                |                     | no             | 3100           |                                |                     |                    |                   |
| 13         | WOB17      | Muskegon | 09N 30E 12 BB             | 10 19 76 River     | 45 cfs (E)                                     | Muskegon River 3 miles SW of Mestone                      | 2050                                |                     | no             | 3000           |                                |                     |                    |                   |
| 14         | WOB18      | Muskegon | 09N 30E 11 CDA            | 10 20 76 Ditch     |  | Drainage along 80 acre salt area, 3.5 miles SW of Mestone | 7100                                |                     | no             | 2900           |                                |                     |                    |                   |
| 15         | WOB20      | Muskegon | 09N 30E 09 CAC            | 10 20 76 Ditch     | 5 cfs (E)                                      | Drainage ditch 5 miles SW of Mestone                      | 3190                                |                     | yes            | 3000           |                                |                     |                    |                   |
| 16         | WOB12      | Muskegon | 09N 30E 17 ABC            | 10 19 76 Canal     | 2 cfs (E)                                      | Lower Muskegon Canal 5 miles W SW of Mestone              | 1980                                |                     | no             | 2980           |                                |                     |                    |                   |
| 17         | WOB20      | Garfield | 14N 30E 11 BBC            | 10 07 76 River     | 22 cfs (E)                                     | Muskegon River at highway                                 | 1700                                |                     | no             | 2840           |                                |                     |                    |                   |
| 18         | WOB13      | Rosboud  | 12N 31E 06 CDC            | 08 23 76 Creek     |  | Rattlesnake Creek   | 1230                                |                     | no             | 2840           |                                |                     |                    |                   |
| 19         | WOB12      | Rosboud  | 12N 31E 06 CCA            | 08 23 76 Well      |  |   | 6850                                |                     | yes            | 2970           |                                |                     | 337MSNC<br>211JDRV | Barrington, Wally |
| 20         | 68AM005    | Rosboud  | 11N 31E 10                | 09 20 60 Well      |  | Strawed Oil Field, Rattlesnake Coulee                     | 5820                                |                     | yes            | 2800           |                                |                     |                    |                   |
| 21         | 68M0007    | Rosboud  | 11N 31E 11                | 02 02 68 Well      |  | 9 miles NE of Mestone                                     | 8240                                |                     | yes            |                |                                |                     | 331MDSN            |                   |
| 22         | 71M0551    | Rosboud  | 11N 32E 14 BBB            | 11 18 71 Well      |  | Rattlesnake Creek, water unused                           | 20200                               |                     | yes            | 2990           |                                |                     | 320TYLR            |                   |
| 23         | 68M0006    | Rosboud  | 11N 32E 07 DA             | 11 25 68 Well      |  | 8 miles NE of Mestone                                     | 17380                               |                     | yes            | 3060           |                                |                     | 330METH            |                   |
| 24         | 55M0002    | Rosboud  | 11N 32E 07 DA             | 04 18 55 Well      | 21 gpm (E)                                     | 10 miles NW of Sumatra                                    | 16800                               |                     | yes            | 2980           |                                |                     | 320TYLR            |                   |
| 25         | 68M0007    | Rosboud  | 11N 32E 07 DA             | 04 10 68 Well      |  | 22 miles W of the Muskegon River                          | 14830                               |                     | yes            | 2900           |                                |                     |                    |                   |
| 26         | 68M0008    | Rosboud  | 11N 32E 15 AB             | 09 04 68 Well      | 8.5 gpm (E)                                    | 9 miles NW of Sumatra                                     | 9420                                |                     | yes            | 3040           |                                |                     | 337MSNC            |                   |
| 27         | WOB12      | Rosboud  | 10N 31E 26 CAC            | 10 15 78 Canal     |  | W of Sumatra Oil field                                    | 1700                                |                     | no             | 3200           |                                |                     | 320TYLR            |                   |
| 28         | 63M0007    | Rosboud  | 10N 31E 11 BB             | 09 30 63 Well      |  | 1 mile E of the Muskegon River                            |                                     |                     | yes            | 2840           |                                |                     |                    |                   |
| 29         | WOB11      | Rosboud  | 10N 31E 14 BBB            | 10 15 78 Creek     | 0.1 cfs (E)                                    | Home Creek near the Muskegon River                        | 6600                                |                     | no             | 3100           |                                |                     |                    |                   |
| 30A        | WOB14      | Muskegon | 10N 31E 35 ECC            | 10 19 76 Canal     | 1 cfs (E)                                      | Upper Muskegon Canal at Mestone                           | 1820                                |                     | no             |                |                                |                     |                    |                   |

## FORSYTH 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map no. | Field number | County      | Location       | Collection date | Flow or yield<br>E = estimated<br>M = measured | Site description                                     | Specific conductivity at 25 °C | Field temperature °C | Lap analysis | Altitude (ft.) | Water depth (ft.) | Well identifier | Abouter code | Owner's name |
|---------|--------------|-------------|----------------|-----------------|--|--|--------------------------------|----------------------|--------------|----------------|-------------------|-----------------|--------------|--------------|
| 308     | WOB8         | Roebud      | 06N 36E 04 BDD | 10 15 76 Pond   |  | Stock use, 9 miles W of logjam by Blacktail Creek    | 8200                           | no                   | no           |                |                   |                 |              |              |
| 310     | WOB8         | Roebud      | 06N 36E 15 AAC | 10 14 76 Pond   |  | In a 100 acre saline area caused by irrigation       | 12040                          | yes                  | yes          |                |                   |                 |              |              |
| 32      | WOB8         | Roebud      | 06N 36E 14 DAB | 10 14 76 Creek  | 20 cfs   | Reservation Creek at highway                         | 710                            | no                   | no           |                |                   |                 |              |              |
| 33      | WOB8         | Roebud      | 06N 36E 18 CCC | 10 14 76 Ditch  | 0.5 cfs (E)                                    | Drainage ditch by a pasture with a 30 acre salt area | 2800                           | no                   | no           |                |                   |                 |              |              |
| 34      | WOB8         | Roebud      | 06N 36E 19 ADB | 10 14 76 Ditch  | 0.1 cfs (E)                                    | Drainage ditch by a pasture with a 50 acre salt area | 12520                          | yes                  | yes          |                |                   |                 |              |              |
| 35      | WOB8         | Roebud      | 06N 36E 02 CDC | 10 15 76 Creek  | 1 cfs (E)                                      | Big Porcupine Creek 5 miles WNW of Forsyth           | 640                            | no                   | no           |                |                   |                 |              |              |
| 36      | WOB8         | Roebud      | 06N 36E 03 DDD | 10 14 76 Canal  | 25 cfs (E)                                     | Hammond Canal 5 miles WNW of Forsyth                 | 1100                           | no                   | no           |                |                   |                 |              |              |
| 37      | WOB15        | Roebud      | 06N 41E 03 ADC | 10 15 76 Creek  | 0.5 cfs (E)                                    | Little Porcupine Creek 1.5 miles NW of Forsyth       | 4449                           | yes                  | yes          |                |                   |                 |              |              |
| 38      | WOB7         | Roebud      | 06N 42E 04 CBB | 09 22 76 Canal  | 30 cfs (E)                                     | Canal 0.5 miles NW of Roebud                         | 490                            | no                   | no           |                |                   |                 |              |              |
| 39      | WOB1         | Roebud      | 06N 42E 08 BDB | 09 22 76 Ditch  |  | Drainage ditch 2 miles NW of Roebud                  | 2620                           | 18.5                 | yes          |                |                   |                 |              |              |
| 40      | WOB16        | Roebud      | 06N 42E 01 ACA | 10 16 76 Ditch  | 0.5 cfs (E)                                    | Drainage ditch in pasture with a 20 acre salt area   | 1600                           | no                   | no           |                |                   |                 |              |              |
| 41      | WOB18        | Roebud      | 06N 43E 03 DDD | 10 16 76 Ditch  |  | Drainage ditch near a 40 acre salt area              | 1790                           | no                   | no           |                |                   |                 |              |              |
| 42      | WOB17        | Roebud      | 06N 43E 10 AA  | 10 16 76 Ditch  |  | Drainage ditch near a 40 acre salt area              | 910                            | no                   | no           |                |                   |                 |              |              |
| 43      | WOB19        | Roebud      | 06N 43E 15 DDC | 10 16 76 Creek  | 0.1 cfs  | Sweeney Creek at 194                                 | 2530                           | no                   | no           |                |                   |                 |              |              |
| 44A     | WOB14        | Roebud      | 06N 42E 18 DBC | 10 15 76 Creek  | 7 cfs (E)                                      | Roebud Creek at highway bridge                       | 1440                           | no                   | no           |                |                   |                 |              |              |
| 44B     | WOB7         | Roebud      | 06N 36E 35 CAC | 10 14 76 Creek  | 0.1 cfs (E)                                    | Arnell Creek 2 miles S of 194                        | 6100                           | no                   | no           |                |                   |                 |              |              |
| 45      | 57AK0065     | Treasure    | 06N 36E 32 AA  | 08 25 57 Well   | 60 cfs (E)                                     | 0.75 miles S of Death Creek                          | 3600                           | yes                  | yes          | 2720           |                   |                 | 320AMS0      |              |
| 46      | WOB12        | Treasure    | 06N 36E 07 AD  | 09 22 76 Canal  | 50 cfs (E)                                     | Irrigation canal 10 miles E of Hyham                 | 620                            | no                   | no           |                |                   |                 |              |              |
| 47      | WOB10        | Treasure    | 06N 37E 07 CDD | 10 14 76 Creek  | 1 cfs (E)                                      | Spry Creek 1 mile S of highway                       | 2600                           | no                   | no           |                |                   |                 |              |              |
| 48      | WOB10        | Treasure    | 06N 36E 01 CCC | 10 14 76 Canal  | 2 cfs (E)                                      | Irrigation canal 2.5 miles E of Hyham                | 3048                           | yes                  | yes          |                |                   |                 |              |              |
| 49      | WOB5         | Treasure    | 06N 36E 05 D   | 04 29 75 Well   |  | Stock well near grain elevators                      | 1320                           | yes                  | yes          |                |                   |                 |              | Zent, Howard |
| 50      | WOB1         | Treasure    | 06N 36E 07 AD  | 09 22 76 Canal  |  | Irrigation ditch, muddy water                        | 2895                           | yes                  | yes          |                |                   |                 |              |              |
| 51      | WOB9         | Treasure    | 06N 36E 08 CAC | 10 14 76 Ditch  |  | Drainage ditch 0.8 mile W of Hyham                   | 3775                           | yes                  | yes          |                |                   |                 |              |              |
| 52      | WOB2         | Treasure    | 06N 36E 13 AA  | 09 22 78 Canal  |  | Irrigation canal adjacent to sugar beet field        | 3600                           | no                   | no           |                |                   |                 |              |              |
| 53      | WOB8         | Treasure    | 06N 36E 18 BDD | 10 14 76 Ditch  | 1 cfs (E)                                      | Drainage ditch 0.2 mile N or bridge                  | 3740                           | yes                  | yes          |                |                   |                 |              |              |
| 54      | WOB3         | Treasure    | 06N 36E 16 CC  | 09 22 76 Creek  | 20 cfs (E)                                     | Magnin Creek at road                                 | 420                            | no                   | no           |                |                   |                 |              |              |
| 55      | WOB6         | Treasure    | 06N 36E 21 CAA | 10 14 76 Ditch  | 1 cfs (E)                                      | Drainage ditch 0.2 mile N of highway bridge          | 2600                           | no                   | no           |                |                   |                 |              |              |
| 56      | WOB4         | Treasure    | 06N 34E 24 DAA | 09 22 76 Creek  | 1 cfs (E)                                      | Alkali Creek   | 18640                          | yes                  | yes          |                |                   |                 |              |              |
| 57      | WOB7         | Treasure    | 06N 34E 24 DAA | 10 14 76 Ditch  | 1 cfs (E)                                      | Irrigation ditch at cattle guard                     | 410                            | no                   | no           |                |                   |                 |              |              |
| 58      | 44AK0002     | Yellowstone | 06N 32E 02 CC  | 10 27 44 Well   |  | 23 miles S of Sumatra                                | 3380                           | yes                  | yes          |                |                   |                 |              | 331CRLS      |

FORSYTH 1° x 2° Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no | Field<br>number | County      | T   | R   | Sec | Tract | Location | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>E = estimated<br>M = measured | Site description                    | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>ft | Static<br>water<br>level<br>depth<br>ft | Well<br>depth<br>ft | Aquifer<br>code | Owner's name |
|------------------|-----------------|-------------|-----|-----|-----|-------|----------|---------------------------------|--------|--|-------------------------------------|--------------------------------------|---------------------|-----------------|----------------|---|---------------------|-----------------|--------------|
| 59               | 44M0003         | Yellowstone | 06N | 32E | 03  | CC    |          | 11 08 44                        | Well   |  | 23 miles S of Sumatra               | 27120                                | yes                 | yes             | 3380           |   |                     | 331MDSN         |              |
| 60               | 56M0001         | Yellowstone | 03N | 31E | 04  | C8B   |          | 10 24 56                        | Well   |  | 1.3 miles NW of Pompeys Pillar      | 9750                                 | yes                 | yes             | 3010           |   |                     | 217LKOT         |              |
| 61               | 56M0002         | Yellowstone | 03N | 31E | 04  | C8B   |          | 10 56                           | Well   |  | 1.3 miles NW of Pompeys Pillar      | 4120                                 | yes                 | yes             | 3010           |   |                     | 320TSLP         |              |
| 62               | 56M0006         | Yellowstone | 03N | 31E | 04  | C8B   |          | 11 05 56                        | Well   |  | 19 miles NW of Custer               | 2990                                 | yes                 | yes             | 3010           |   |                     | 320AMS0         |              |
| 63               | 56M0007         | Yellowstone | 03N | 31E | 04  | C8B   |          | 11 08 56                        | Well   |  | 19 miles NW of Custer               |                                      |                     |                 |                |   |                     |                 |              |
| 64               | 73M604          | Treasure    | 03N | 37E | 06  | DB    |          | 06 25 73                        | Well   |  | Domestic use                        | 2360                                 | 10.5                | yes             | 3100           |   |                     |                 | Howard, Rick |
| 65               | 74M106          | Treasure    | 03N | 37E | 06  | ACCB  |          | 06 25 73                        | Spring |  | Stock use                           | 2500                                 | 21                  | yes             | 3050           |   |                     | 125TGRV         | Howard       |
| 66               | 74M108          | Treasure    | 03N | 37E | 06  | DDDD  |          | 06 25 73                        | Well   |  | Stock use                           | 5320                                 | 10.5                | yes             | 3060           |   |                     | 125TGRV         | Howard       |
| 67               | 73M580          | Ruebud      | 04N | 40E | 06  | CC    |          | 09 12 73                        | Well   | 20 gpm (M)                                     | Stock use 1 mile SE of Gullin Ranch | 3010                                 | yes                 | yes             | 3160           | 30                                      |                     |                 |              |
| 68               | 73M584          | Ruebud      | 03N | 41E | 06  | EDCA  |          | 07 24 73                        | Creek  |  | Arnell's Creek                      | 1770                                 | 27                  | yes             | 2920           |   |                     |                 |              |
| 69               | 73M585          | Ruebud      | 04N | 40E | 06  | BBCA  |          | 07 25 73                        | Creek  |  | Arnell's Creek                      | 6060                                 | 21                  | yes             | 2740           |   |                     |                 |              |
| 70               | 73M586          | Ruebud      | 04N | 40E | 21  | AABA  |          | 07 25 73                        | Creek  |  | Arnell's Creek                      | 6790                                 | 22                  | yes             | 2920           |   |                     |                 |              |
| 71               | 73M587          | Ruebud      | 04N | 40E | 25  | CBDB  |          | 07 25 73                        | Creek  |  | Arnell's Creek                      | 5390                                 | 24                  | yes             | 2850           |   |                     |                 |              |
| 72               | 64M0019         | Mustislett  | 10N | 30E | 01  | AA    |          | 04 27 64                        | Well   |  | 0.78 miles NE of Butte Coulee       |                                      | yes                 | yes             | 3050           |   |                     | 320TYLR         |              |

## FORSYTH

## Chemical Analyses

| Mu-<br>rel<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mu Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|-------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 1                 | 14N 31E 07 DA             | 03 17 76                        | Creek  | 291             | 344                    | 1300           | 12.6                  |              |                        |                               | 325                                     |                                      | 47               | 4440                          |
| 4                 | 11N 30E 08 ABA            | 10 25 55                        | Well   | 300             | 55                     | 3000*          |                       |              |                        |                               | 370                                     |                                      | 2500             | 5400                          |
| 5                 | 11N 31E 07 CC             | 10 23 32                        | Well   |                 |                        | 550*           |                       |              |                        |                               | 885                                     | 24                                   | 51               | 340                           |
| 6                 | 11N 31E 29 DB             | 05 02 66                        | Well   | 280             | 34                     | 6400           | 30                    |              |                        |                               | 1730                                    |                                      | 3300             | 8500                          |
| 7                 | 11N 31E 32 DB             | 09 20 68                        | Well   | 76              | 50                     | 7500           | 75                    |              |                        |                               | 732                                     | 60                                   | 7200             | 5800                          |
| 8                 | 10N 31E 11 BB             | 09 30 64                        | Well   | 16              | 76                     | 460*           |                       |              |                        |                               | 511                                     | 76                                   | 520              | 60                            |
| 9                 | 10N 30E 03 ABB            | 05 26 54                        | Well   | 2900            | 840                    | 32000*         |                       |              |                        |                               | 278                                     |                                      | 57400            | 2200                          |
| 10                | 10N 31E 21 BD             | 09 09 75                        | River  | 82              | 54                     | 120            | 3.7                   | .95          | .10                    |                               | 282                                     |                                      | 11               | 435                           |
| 15                | 09N 30E 09 CAC            | 10 20 78                        | Ditch  | 94              | 150                    | 500            | 10                    |              |                        |                               | 573                                     |                                      | 34               | 1430                          |
| 19                | 12N 29E 09 AA             | 06 23 61                        | Well   | 500             | 75                     | 890*           |                       |              |                        |                               | 415                                     |                                      | 640              | 2200                          |
| 20                | 11N 31E 10                | 09 20 60                        | Well   | 26              | 10                     | 1700*          |                       |              |                        |                               | 85                                      | 50                                   | 440              | 2500                          |
| 21                | 11N 31E 11                | 02 02 88                        | Well   | 320             | 40                     | 1500*          |                       |              |                        |                               | 366                                     |                                      | 1700             | 1500                          |
| 22                | 11N 32E 14 BBB            | 11 18 71                        | Well   | 423             | 1145                   | 4120           | 45.3                  | .14          | 17.76                  | 10.6                          | 2                                       |                                      | 2826             | 10200                         |
| 23                | 11N 32E 07 DA             | 11 25 68                        | Well   | 190             | 27                     | 4500           | 31                    |              |                        |                               | 988                                     | 48                                   | 2600             | 5600                          |
| 24                | 11N 32E 07 DA             | 04 18 55                        | Well   | 280             | 46                     | 4800*          |                       |              |                        |                               | 760                                     |                                      | 260              | 10000                         |
| 25                | 11N 32E 07 DA             | 04 10 69                        | Well   | 290             | 27                     | 3500           | 46                    |              |                        |                               | 854                                     |                                      | 2300             | 4400                          |
| 26                | 11N 32E 15 AB             | 09 04 69                        | Well   | 340             | 46                     | 1800*          |                       |              |                        |                               | 476                                     |                                      | 2100             | 1600                          |
| 28                | 10N 31E 11 BB             | 09 30 63                        | Well   | 16              | 76                     | 460*           |                       |              |                        |                               | 511                                     | 75                                   | 520              | 60                            |
| 31                | 06N 38E 15 AC             | 10 14 76                        | Pond   | 414             | 575                    | 2410           | 37                    |              |                        |                               | 1220                                    |                                      | 8.7              | 7330                          |
| 34                | 06N 29E 19 ADB            | 10 14 76                        | Ditch  | 368             | 355                    | 2890           | 23                    |              |                        |                               | 472                                     |                                      | 3.2              | 8040                          |
| 37                | 06N 41E 03 ADC            | 10 15 76                        | Creek  | 401             | 136                    | 500            | 52                    |              |                        |                               | 188                                     | 8                                    | 302              | 2030                          |
| 39                | 06N 42E 09 BBB            | 09 22 76                        | Ditch  | 102             | 30.6                   | 490            | 7.5                   |              |                        |                               | 446                                     |                                      | 19               | 980                           |
| 45                | 08N 36E 33 AA             | 06 25 57                        | Well   | 260             | 53                     | 390*           |                       |              |                        |                               | 360                                     |                                      | 94               | 1200                          |
| 48                | 06N 36E 10 CC             | 10 14 76                        | Canal  | 116             | 89                     | 470            | 10                    |              |                        |                               | 317                                     |                                      | 32               | 1250                          |
| 49                | 06N 36E 05 D              | 04 29 75                        | Well   | 102             | 34.5                   | 155            |                       |              |                        |                               | 285                                     |                                      | 25.3             | 440                           |
| 50                | 06N 36E 07 AD             | 09 22 76                        | Canal  | 95              | 49                     | 490            | 9.5                   |              |                        |                               | 410                                     |                                      | 28               | 925                           |
| 51                | 06N 36E 08 CAC            | 10 14 76                        | Ditch  | 107             | 120                    | 545            | 13                    |              |                        |                               | 335                                     |                                      | 45               | 1430                          |
| 53                | 06N 35E 16 BDD            | 10 14 76                        | Ditch  | 94              | 67                     | 755            | 11                    |              |                        |                               | 671                                     |                                      | 38               | 1490                          |
| 56                | 06N 34E 24 DA             | 09 22 76                        | Creek  | 98              | 43                     | 5200           | 19                    | .41          | .06                    |                               | 922                                     |                                      | 206              | 11460                         |
| 58                | 06N 32E 02 CC             | 10 27 44                        | Well   | 270             | 41                     | 590*           |                       |              |                        |                               | 275                                     |                                      | 140              | 1600                          |
| 59                | 06N 32E 02 CC             | 11 04 44                        | Well   | 580             | 68                     | 1400*          |                       |              |                        |                               | 355                                     |                                      | 280              | 3900                          |
| 60                | 03N 31E 04 CBB            | 10 24 56                        | Well   | 140             | 50                     | 6100*          |                       |              |                        |                               | 535                                     |                                      | 9400             | 57                            |
| 61                | 03N 31E 04 CBB            | 10 56                           | Well   | 46              | 11                     | 2400*          |                       |              |                        |                               | 930                                     | 118                                  | 2300             | 1100                          |
| 62                | 03N 31E 04 CBB            | 11 05 56                        | Well   | 370             | 77                     | 620*           |                       |              |                        |                               | 315                                     |                                      | 120              | 2100                          |
| 63                | 03N 31E 04 CBB            | 11 08 56                        | Well   | 400             | 90                     | 310*           |                       |              |                        |                               | 340                                     |                                      | 66               | 1600                          |
| 64                | 03N 37E 08 DB             | 06 25 73                        | Well   | 32              | 33                     | 517            | 6.2                   |              |                        | 9.4                           | 525                                     | 5                                    | 22               | 836                           |
| 65                | 03N 37E 09 ACB            | 06 25 73                        | Spring | 56              | 238                    | 420            | 8.9                   | .02          |                        | 9.9                           | 490                                     | 2                                    | 36               | 1516                          |
| 66                | 03N 37E 09 DDDD           | 06 73                           | Well   | 20              | 40                     | 1485           | 7.3                   |              |                        | 7.6                           | 716                                     | 72                                   | 11.8             | 2632                          |
| 67                | 03N 40E 19 BD             | 09 12 73                        | Well   | 15.7            | 4.9                    | 747.5          | 3.8                   | .14          | .02                    | 10.3                          | 661                                     |                                      | 11.5             | 1040                          |
| 68                | 03N 41E 08 CDCA           | 07 24 73                        | Creek  | 23              | 44                     | 361            | 3.5                   | .24          | .14                    | 1.1                           | 425                                     | 28                                   | 8                | 584                           |
| 69                | 04N 40E 09 BB CA          | 07 25 73                        | Creek  | 92              | 214                    | 1310           | 11.4                  | .06          | .03                    | 1.7                           | 425                                     | 24                                   | 33               | 3405                          |
| 70                | 04N 40E 21 AABA           | 07 25 73                        | Creek  | 120             | 203                    | 1245           | 8.6                   | .09          | .18                    | 8.6                           | 492                                     |                                      | 33               | 3270                          |
| 71                | 04N 40E 25 CBD8           | 07 25 73                        | Creek  | 216             | 264                    | 935            | 10.5                  | .11          | .03                    | 4.3                           | 371                                     |                                      | 38               | 3185                          |
| 72                | 10N 30N 01 AA             | 04 27 64                        | Well   | 29              |                        | 3800*          |                       |              |                        |                               | 738                                     | 95                                   | 3400             | 2800                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

1° x 2° Sheet

## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(NI) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|-----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 1                  | .24             |                 | 7.86      | 7.5                  | 7615  | 6759                           | 2140                                      | 267   | 12.2                          | WQB                  |                        |                 | No                            | 78W0493       |
| 4                  |                 |                 |           |                      |   |                                | 975                                       | 303   |                               | Unknown              |                        | 331K88Y         | No                            | 56M0001       |
| 5                  |                 |                 |           |                      |   |                                |   | 766   |                               | Unknown              |                        | 217LKOT         | No                            | 32M0004       |
| 6                  |                 | 8.2             |           |                      |   | 19400                          | 829                                       | 1420  | 96.1                          | Unknown              |                        | 320TYLR         | No                            | 66M0026       |
| 7                  |                 | 8.6             |           |                      |   | 21120                          | 396                                       | 700   | 164                           | Unknown              |                        | 320TYLR         | No                            | 68M0006       |
| 8                  |                 |                 | 8.0       |                      |   |                                | 353                                       | 544   |                               | USGS                 |                        | 320TYLR         | No                            | 64M0077       |
| 9                  |                 |                 | 5.4       |                      |   |                                | 9230                                      | 228   |                               | Unknown              |                        |                 | No                            | 54M0007       |
| 10                 | .08             |                 | 8.25      | 23                   | 1270  | 987                            | 426                                       | 231   | 2.5                           | WQB                  |                        |                 | Yes                           | 79W1898       |
| 15                 | .02             |                 | 8.2       |                      | 3190  | 2500                           | 855                                       | 470   | 7.4                           | WQB                  |                        |                 | No                            | 76W2598       |
| 19                 |                 |                 | 6.8       |                      |   |                                | 1560                                      | 340   | 5.7                           | Unknown              |                        | 337MSNC         | No                            | 61M0002       |
| 20                 |                 |                 | 8.3       |                      |   |                                | 106                                       | 153   | 7.4                           | Unknown              |                        | 211JDRV         | No                            | 60M0005       |
| 21                 |                 |                 | 7.8       |                      |   |                                | 964                                       | 300   | 5.1                           | Unknown              |                        | 331MDSN         | No                            | 68M0007       |
| 22                 |                 | 1.9             | 5.3       |                      | 20200                                       | 18790                          | 5850                                      | 1   | 23.8                          | MOG                  |                        |                 | No                            | 71M0551       |
| 23                 |                 |                 | 8.2       |                      |   | 13480                          | 586                                       | 890   | 80.9                          | Unknown              |                        | 320TYLR         | No                            | 68M0006       |
| 24                 |                 |                 | 7.2       |                      |   |                                | 888                                       | 623   |                               | Unknown              |                        | 331HETH         | No                            | 55M0002       |
| 25                 |                 |                 | 7.6       |                      |   | 10980                          | 835                                       | 700   | 52.7                          | Unknown              |                        | 320TYLR         | No                            | 68M0007       |
| 28                 |                 |                 |           |                      |   |                                | 1040                                      | 390   | 12.8                          | Unknown              |                        | 337MSNC         | No                            | 68M0008       |
| 28                 |                 |                 | 8.0       |                      |   |                                | 353                                       | 544   |                               | Unknown              |                        | 320TYLR         | No                            | 63M0007       |
| 31                 |                 |                 | 7.6       |                      | 12040                                       | 11380                          | 3400                                      | 1000  | 16.0                          | WQB                  |                        |                 | No                            | 76W2590       |
| 34                 | .8              |                 | 8.2       |                      | 12520                                       | 11910                          | 2380                                      | 387   | 25.8                          | WQB                  |                        |                 | No                            | 76W2591       |
| 37                 | .03             |                 | 8.4       |                      | 4449  | 3520                           | 1560                                      | 168   | 5.5                           | WQB                  |                        |                 | No                            | 76W2596       |
| 39                 | .28             |                 | 7.9       | 18.5                 | 2620  | 1850                           | 390                                       | 365   | 10.9                          | WQB                  |                        |                 | No                            | 76W2344       |
| 45                 |                 |                 | 6.9       |                      |   |                                | 867                                       | 312   | 6.3                           | Unknown              |                        | 320AMSO         | No                            | 57M0005       |
| 48                 | .50             |                 | 8.2       |                      | 3048  | 2170                           | 655                                       | 260   | 8.0                           | WQB                  |                        |                 | No                            | 76W2596       |
| 49                 | .11             |                 | 7.61      |                      | 1320  | 1043                           | 397                                       | 234   | 3.4                           | WQB                  |                        |                 | No                            | 75W0597       |
| 50                 | .40             |                 | 8.1       |                      | 2885  | 1840                           | 440                                       | 336   | 10.7                          | WQB                  |                        |                 | No                            | 76W2341       |
| 51                 | .98             |                 | 8.2       |                      | 3775  | 2530                           | 761                                       | 275   | 8.6                           | WQB                  |                        |                 | No                            | 76W2594       |
| 53                 | .96             |                 | 8.1       |                      | 3740  | 2790                           | 510                                       | 550   | 14.5                          | WQB                  |                        |                 | No                            | 76W2593       |
| 56                 | .10             |                 | 8.2       |                      | 18640                                       | 17470                          | 422                                       | 758   | 110                           | WQB                  |                        |                 | Yes                           | 76W2343       |
| 58                 |                 |                 |           |                      |   |                                | 843                                       | 226   |                               | Unknown              |                        | 331CRLS         | No                            | 44M0002       |
| 59                 |                 |                 |           |                      |   | 1730                           | 291                                       |   |                               | Unknown              |                        | 331MDSN         | No                            | 44M0003       |
| 60                 |                 |                 | 7.8       |                      |   |                                | 555                                       | 438   |                               | Unknown              |                        | 217LKOT         | No                            | 56M0001       |
| 61                 |                 |                 | 8.3       |                      |   |                                | 160                                       | 960   |                               | Unknown              |                        |                 | No                            | 56M0002       |
| 62                 |                 |                 | 7.1       |                      |   |                                | 1240                                      | 258   |                               | Unknown              |                        | 320TSLP         | No                            | 56M0006       |
| 63                 |                 |                 | 7.2       |                      |   |                                | 1370                                      | 279   |                               | Unknown              |                        | 320AMSO         | No                            | 56M0007       |
| 64                 | .271            | 1.4             | 8.36      | 10.5                 | 2360  | 1722                           | 217                                       | 448   | 15.3                          | M8MG                 |                        |                 | No                            | 73M804        |
| 65                 | 1.8             | .2              | 8.42      | 23                   | 3237  | 2777                           | 1140                                      | 410   | 5.5                           | M8MG                 |                        | 125TGRV         | No                            | 74M106        |
| 66                 | .1              | .7              | 8.65      | 10.5                 | 5920  | 4629                           | 215                                       | 828   | 44.3                          | M8MG                 |                        | 125TGRV         | No                            | 74M108        |
| 67                 | .791            | .8              | 8.2       |                      | 3010  | 2171                           | 59  | 559   | 42.1                          | SCS                  |                        |                 | No                            | 74M0040       |
| 68                 | .677            | .5              | 8.78      | 27                   | 1770  | 1272                           | 242                                       | 437   | 10.2                          | USGS                 |                        |                 | Yes                           | 73M584        |
| 69                 | .519            | .4              | 8.56      | 21                   | 6060  | 5302                           | 1120                                      | 429   | 17.1                          | M8MG                 |                        |                 | Yes                           | 73M585        |
| 70                 | .3              |                 | 8.26      | 22                   | 5790  | 5131                           | 1150                                      | 403   | 18.1                          | M8MG                 |                        |                 | Yes                           | 73M586        |
| 71                 | .3              |                 | 8.06      | 24                   | 5390  | 4816                           | 1640                                      | 305   | 10.1                          | M8MG                 |                        |                 | Yes                           | 73M587        |
| 72                 |                 |                 | 8.5       |                      |   |                                | 72  | 764   |                               | Unknown              |                        | 320TYLR         | No                            | 64M0019       |

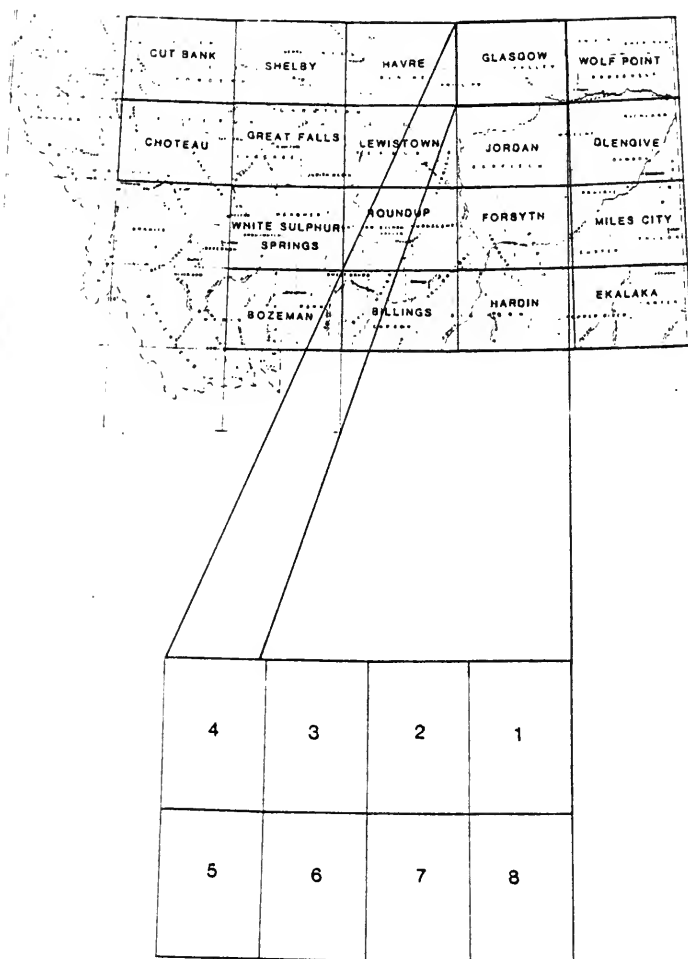
## FORSYTH 1° x 2' Sheet

## Trace Elements Analysis Sheet

| Map<br>ref<br>no. | Location<br>T R Sec Tract | Alu.<br>(mg/l) | Anti.<br>(mg/l) | Ar.<br>Beryl.<br>(mg/l) | Baron<br>(mg/l) | Cad.<br>(mg/l) | Chro.<br>(mg/l) | Copper<br>(mg/l) | Lead<br>(mg/l) | Lith.<br>Mer.<br>(mg)(ug/l) | Nickel<br>(mg/l) | Phosphate<br>(Total<br>dissolved) | Selenium<br>(ug/l) | Silver<br>(mg/l) | Stron.<br>tium<br>(mg/l) | Tin<br>(mg/l) | Zinc<br>(mg/l) | Lab<br>number |         |
|-------------------|---------------------------|----------------|-----------------|-------------------------|-----------------|----------------|-----------------|------------------|----------------|-----------------------------|------------------|-----------------------------------|--------------------|------------------|--------------------------|---------------|----------------|---------------|---------|
| 10                | 10N 31E 21 BD             | .51            |                 | 2                       |                 | .002           |                 | <0.01            | <0.05          | <1.0                        | 4                | .02                               |                    | <1.0             | <0.05                    | .52           |                | .01           | 75M1898 |
| 56                | 06N 34E 24 DA             |                | <1.0            |                         |                 | <0.005         |                 | <0.01            | <0.05          |                             |                  |                                   |                    |                  |                          |               | <0.01          | .76M2343      |         |
| 68                | 03N 41E 06 CD CA          |                |                 |                         | .2              | <0.01          | <0.02           | <0.01            | .1             | 2                           | <0.05            | .21                               |                    |                  |                          |               |                | 1             | 73M584  |
| 69                | 04N 40E 09 BB CA          |                |                 |                         | .5              | .01            | <0.02           | <0.01            | .1             | 2                           | <0.05            | .04                               |                    |                  |                          |               |                | .02           | 73M585  |
| 70                | 04N 40E 21 AA BA          |                |                 |                         | .6              | .02            | <0.02           | .01              | .1             | 2                           | <0.05            | .03                               |                    |                  |                          |               |                | .02           | 73M586  |
| 71                | 04N 40E 25 CB DB          |                |                 |                         | .6              | .01            | .02             | .01              | .1             | 2                           | <0.05            | .03                               |                    |                  |                          |               |                | .02           | 73M587  |



# LOCATION BASE MAP



GLASGOW 1° x 2° SHEET



## GLASGOW 1

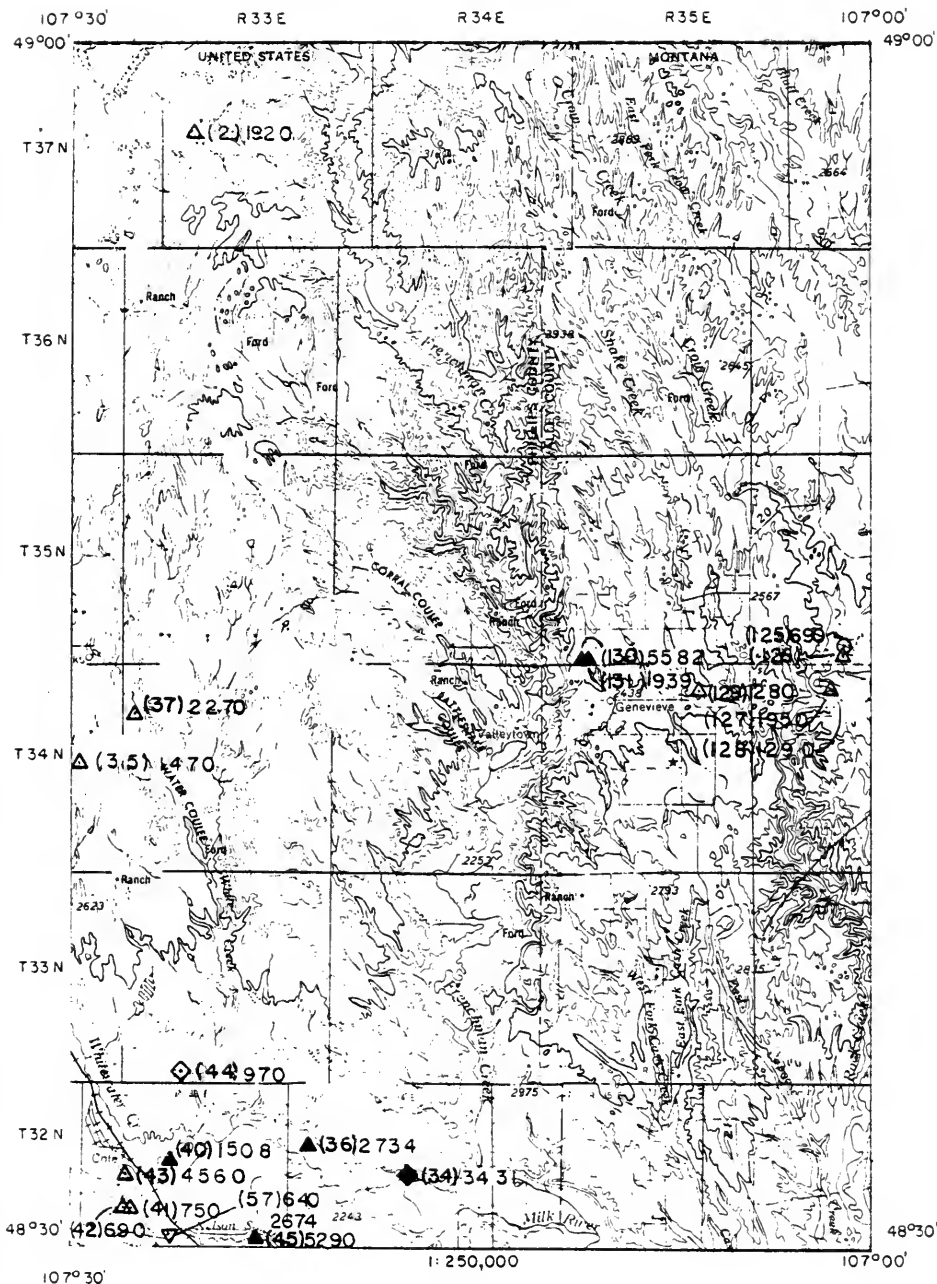


GLASGOW 2



# SPECIFIC CONDUCTANCE SURVEY

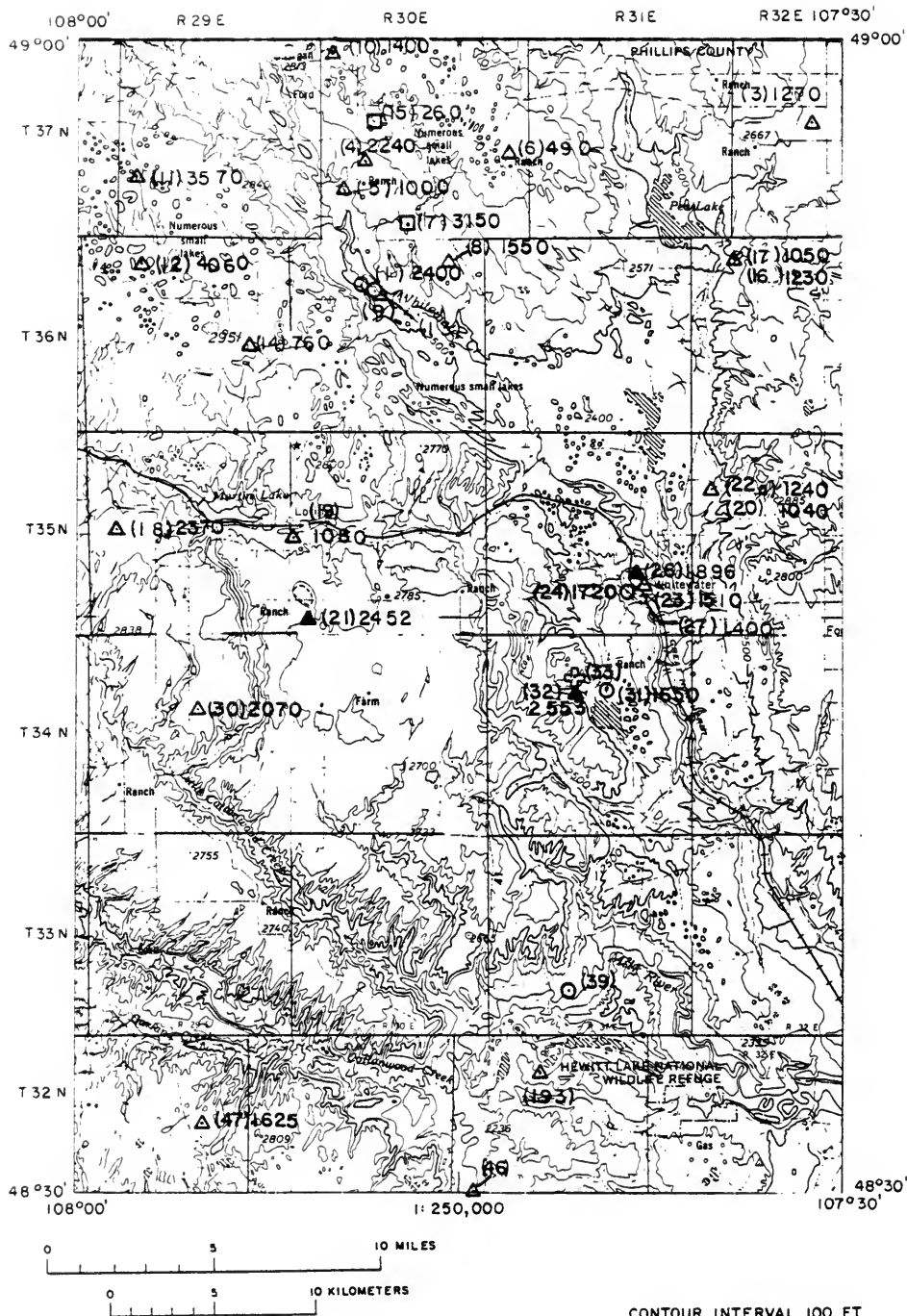
GLASGOW 3



CONTOUR INTERVAL 100 FT

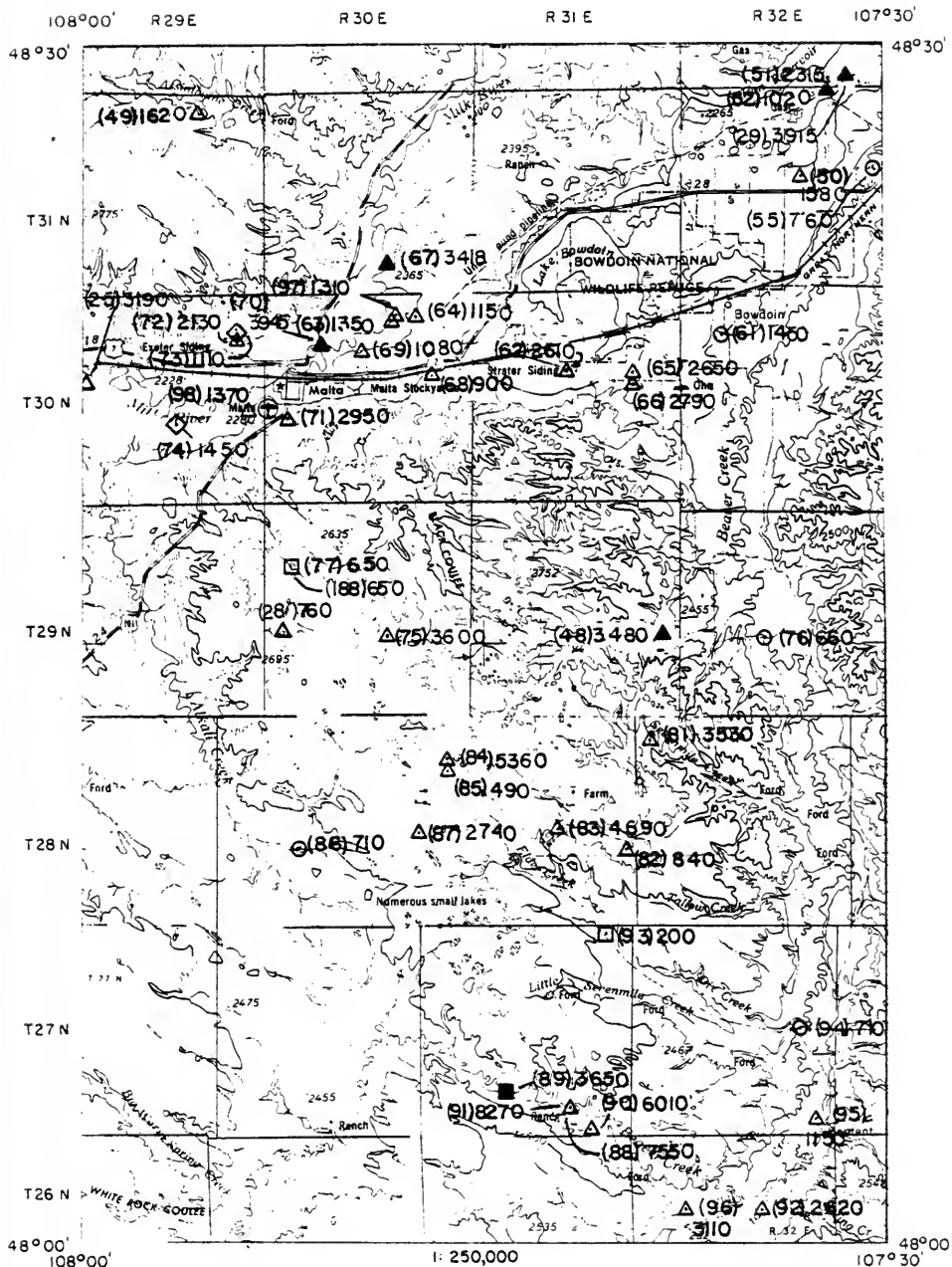
# SPECIFIC CONDUCTANCE SURVEY

GLASGOW 4



# SPECIFIC CONDUCTANCE SURVEY

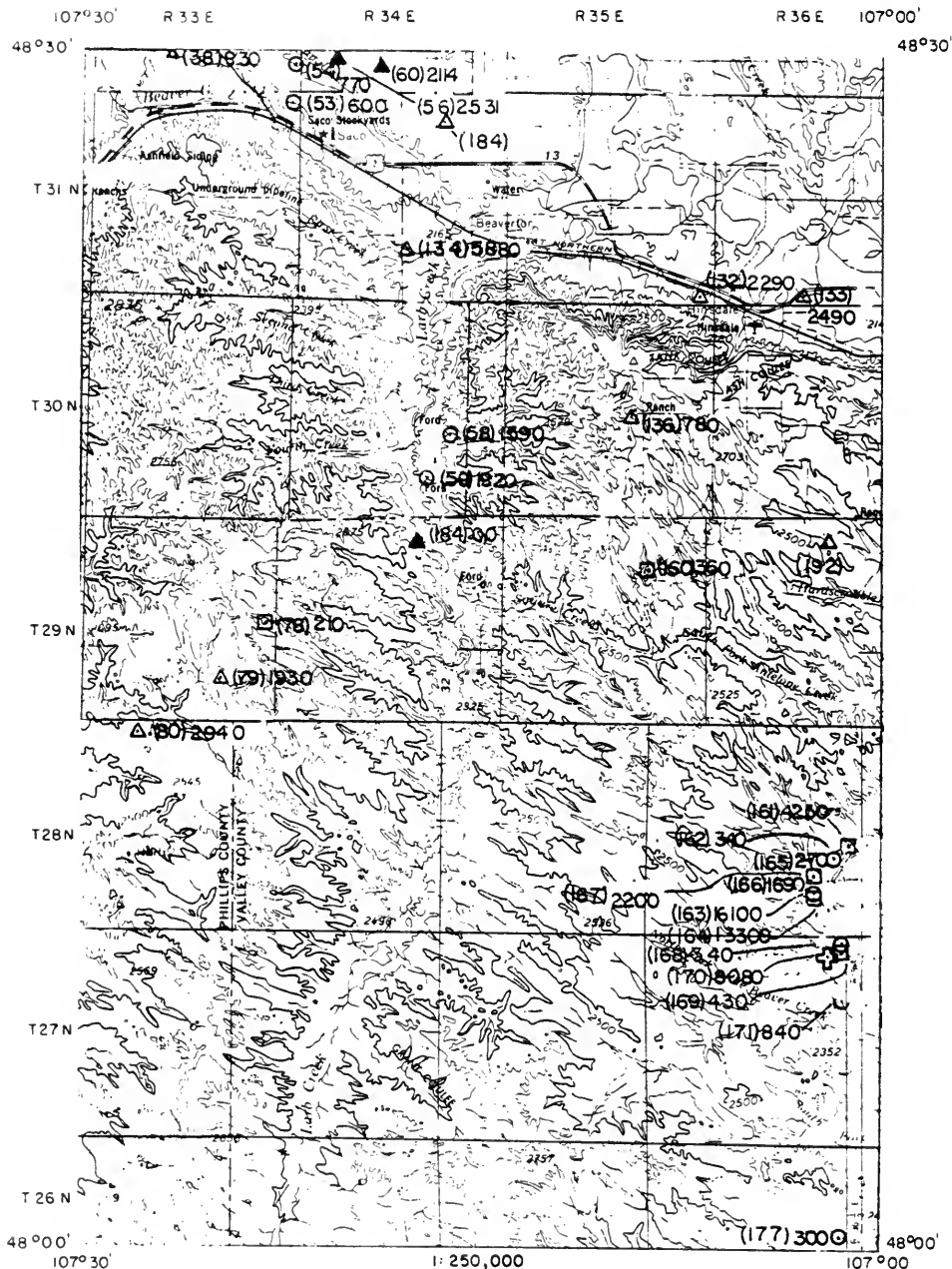
GLASGOW 5



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

GLASGOW 6

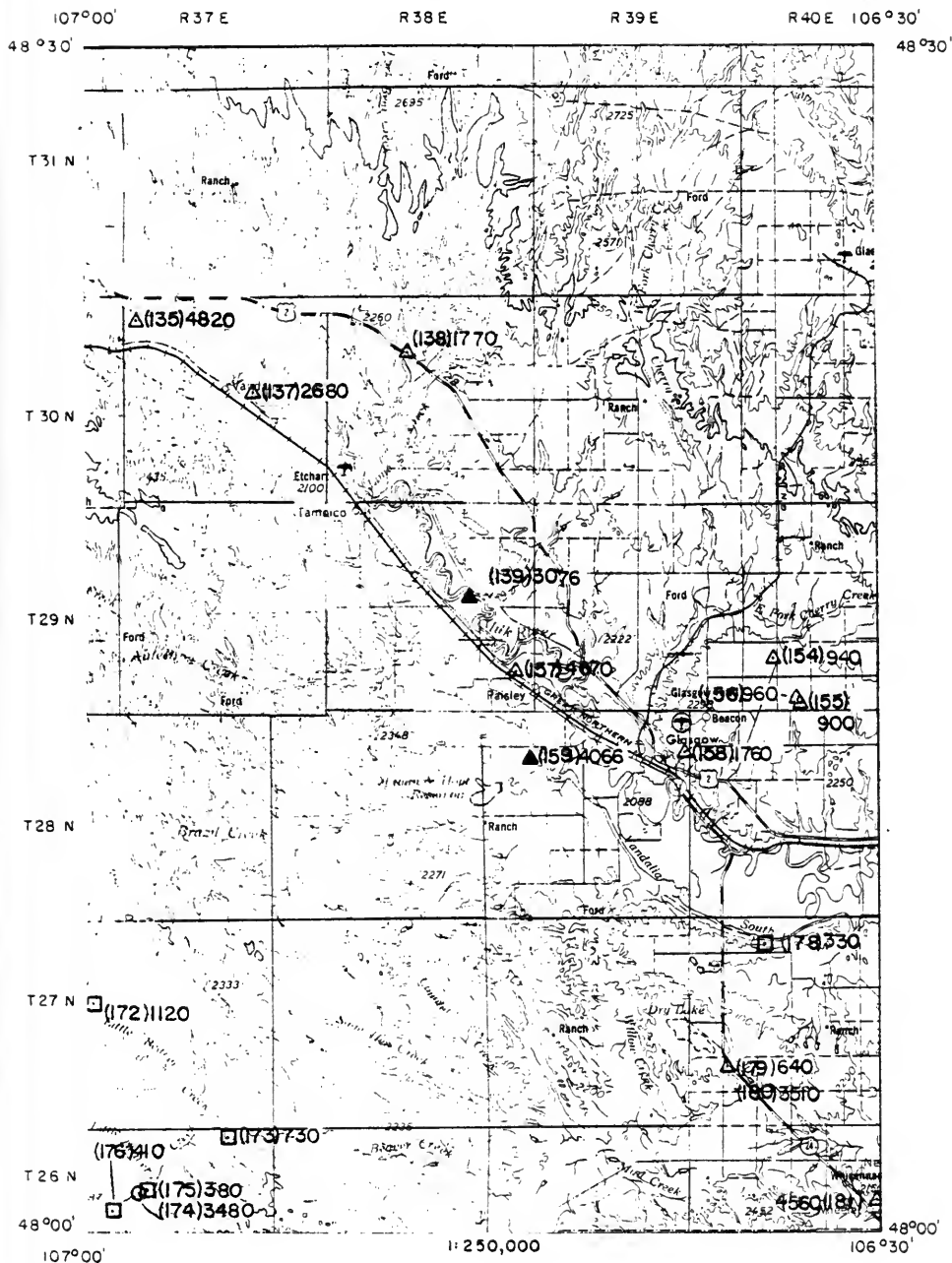


CONTOUR INTERVAL 100 FT



# SPECIFIC CONDUCTANCE SURVEY

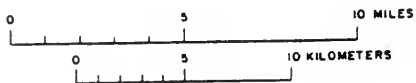
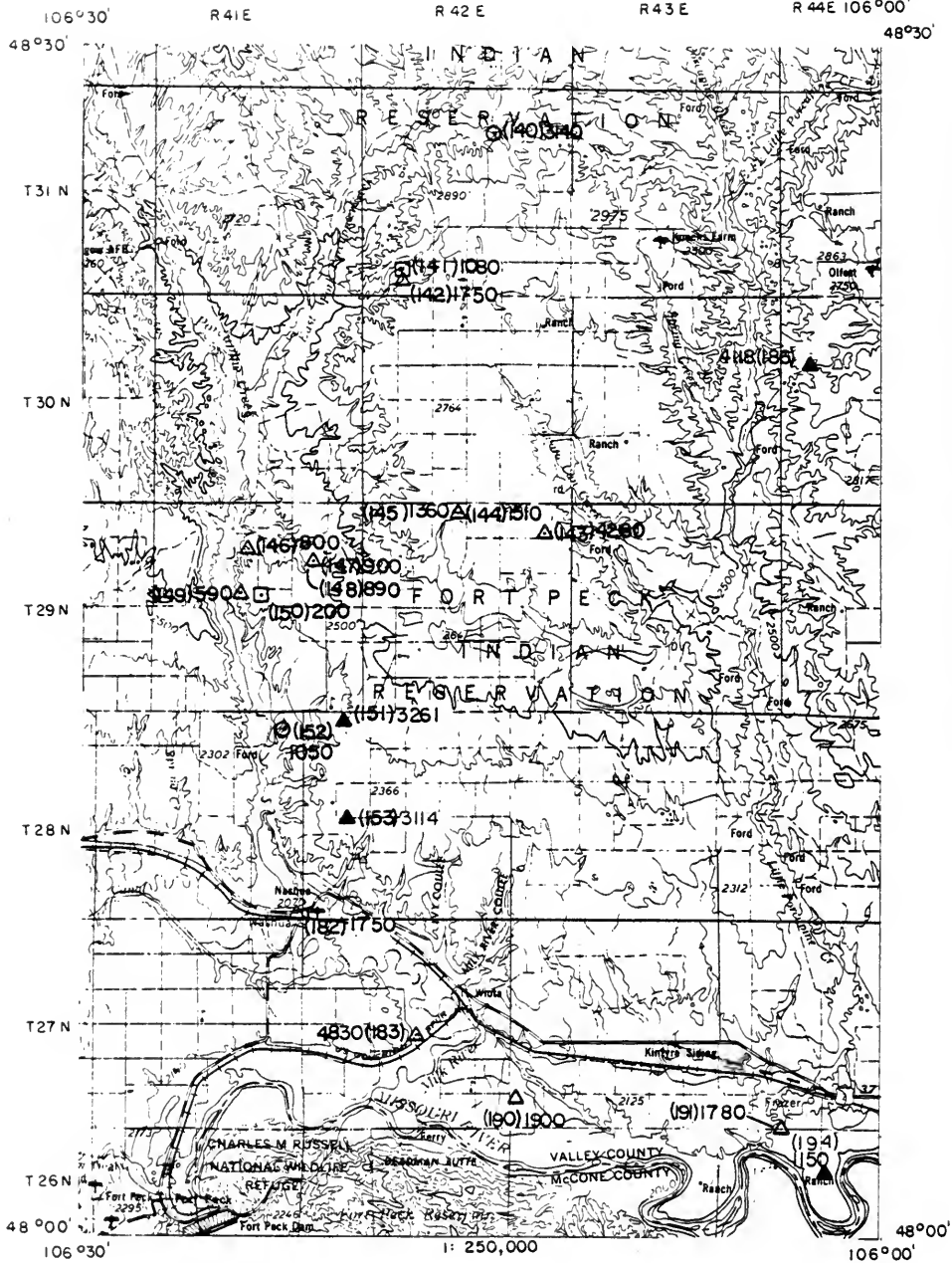
GLASGOW 7



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

GLASGOW 8



CONTOUR INTERVAL 100 FT

GLASGOW 1" x 2" Sheet

Specific Conductivity Inventory Sheet

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec Tect | Collection<br>date<br>Mo Day Yr | Source<br>M = measured<br>E = estimated | Flow or yield | Site description                                  | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water level<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name            |
|--------------------|-----------------|----------|--------------------------|---------------------------------|---|---------------|---|--------------------------------------|----------------------|-----------------|-------------------|---|------------------------|-----------------|-------------------------|
| 1                  | MBMG16          | Phillips | 36N 30E 09 8C            | 07 21 78                        | Creek                                   | no flow       | Small creek overgrown with weeds                  | 2400                                 | 18.8                 | no              | 2500              | 40                                      | 45                     |                 | Hammond                 |
| 2                  | MBMG30          | Phillips | 37N 32E 18 8AD           | 07 22 78                        | Well                                    | 8 gpm         | Domestic use except for drinking, has a bad taste | 1820                                 | 22.8                 | no              | 2740              | 8                                       | 20                     | 2850            | Math                    |
| 3                  | MBMG29          | Phillips | 37N 32E 18 8AA           | 07 22 78                        | Well                                    | 8 gpm         | Domestic and stock use                            | 1270                                 | 9.8                  | no              | 2860              | 95                                      | 110                    | 2680            | Simonton, L.            |
| 4                  | MBMG10          | Phillips | 37N 30E 20 8B            | 07 21 78                        | Well                                    | 8 gpm         | Stock use, iron taste                             | 2240                                 | 12.3                 | no              | 2680              | 66                                      | 199                    |                 | Simonton, L.            |
| 5                  | MBMG11          | Phillips | 37N 30E 20               | 07 21 78                        | Well                                    | 20 gpm        | Domestic use, located 3500 feet S of house        | 1000                                 | 17.6                 | no              | 2610              |   |                        |                 |                         |
| 6                  | MBMG12          | Phillips | 37N 30E 24               | 07 21 78                        | Well                                    | 10 gpm        | Domestic use, water is analyzed every spring      | 490                                  | 12                   | no              | 2820              | 267                                     | 360                    |                 | McMullen                |
| 7                  | MBMG13          | Phillips | 36N 30E 09 8C            | 07 21 78                        | Well                                    | 10 gpm        | Stock use and water-bowl habitat                  | 2160                                 | 21.2                 | no              | 2750              | 90                                      | 125                    |                 | Halse                   |
| 8                  | MBMG14          | Phillips | 36N 30E 13 8AA           | 07 21 78                        | Well                                    | 10 gpm        | Domestic use, water is analyzed every spring      | 1550                                 | 16.5                 | no              | 2780              |   |                        |                 |                         |
| 9                  | MBMG15          | Phillips | 36N 30E 09               | 07 21 78                        | Creek                                   |               | Whitewater Creek, mud algae                       | 1400                                 | 12                   | no              | 2790              | 280                                     | 403                    |                 | Ganter, A.              |
| 10                 | MBMG8           | Phillips | 37N 30E 06 8             | 07 21 78                        | Well                                    |               | Abandoned well, new well 5 feet from it           |                                      |                      | no              |                   |   |                        |                 |                         |
| 11                 | MBMG6           | Phillips | 37N 29E 30 8B8           | 07 22 78                        | Well                                    | 10 gpm        | Stock use at abandoned ranch                      | 2570                                 | 19.9                 | no              | 2840              | 300                                     | 300                    |                 | Webb                    |
| 12                 | MBMG7           | Phillips | 37N 29E 06 D             | 07 22 78                        | Well                                    | 15 gpm        | Owner built drinking water                        | 4060                                 | 11.1                 | no              | 2540              | 285                                     |                        |                 | Drydahl                 |
| 13                 | MBMG17          | Phillips | 36N 30E 09               | 07 21 78                        | Well                                    |               | Domestic use except for drinking, rust in water   |                                      |                      | no              |                   |   |                        |                 |                         |
| 14                 | MBMG18          | Phillips | 36N 29E 23 8DA           | 07 21 78                        | Well                                    | 20 gpm        | Domestic use, water is soft, no filter used       | 760                                  | 13.7                 | no              | 2950              | 190                                     | 242                    |                 | Johnsen                 |
| 15                 | MBMG9           | Phillips | 37N 30E 17               | 07 21 78                        | Reservoir                               |               | Stock use   | 260                                  | 22                   | no              | 2750              |   |                        |                 | Anderson                |
| 16                 | MBMG318         | Phillips | 36N 32E 06 8AC           | 07 22 78                        | Well                                    |               | Stock use   | 1230                                 | 10.3                 | no              | 2500              | 60                                      |                        |                 | Anderson                |
| 17                 | MBMG31A         | Phillips | 36N 32E 06 8AC           | 07 22 78                        | Well                                    |               | Domestic use                                      | 1060                                 | 11.8                 | no              | 2500              | 20                                      |                        |                 | Lang                    |
| 18                 | MBMG22          | Phillips | 36N 29E 18 8D            | 07 22 78                        | Well                                    |               | Domestic and stock use, water is high in iron     | 2370                                 | 18.8                 | no              | 2850              | 287                                     |                        |                 | Stordahl                |
| 19                 | MBMG23          | Phillips | 36N 30E 18 8B8           | 07 21 78                        | Well                                    |               | Domestic use, need water softener                 | 1080                                 | 14                   | no              | 2800              | 300                                     |                        |                 | Dunbar                  |
| 20                 | MBMG368         | Phillips | 36N 32E 07               | 07 22 78                        | Well                                    |               | Domestic use                                      | 1040                                 | 11.7                 | no              | 2460              | 30                                      |                        |                 | Drydahl                 |
| 21                 | MBMG24          | Phillips | 36N 30E 31               | 12 19 78                        | Well                                    |               | Domestic use except for drinking                  | 2452                                 | 11.7                 | yes             | 2600              | 220                                     | 211 JDRV               |                 | Dunbar                  |
| 22                 | MBMG36A         | Phillips | 36N 32E 07               | 07 22 78                        | Well                                    |               | Domestic use, water is soft                       | 1240                                 | 10.5                 | no              | 2460              | 10                                      |                        |                 | Zemkehusen              |
| 23                 | MBMG35          | Phillips | 36N 31E 26               | 07 22 78                        | Well                                    |               | Domestic use                                      | 1510                                 | 14                   | no              | 2660              | 26                                      |                        |                 |                         |
| 24                 | MBMG36          | Phillips | 36N 31E 26               | 07 22 78                        | Well                                    |               | Whitewater Creek                                  | 1170                                 | 11.6                 | no              | 2750              | 100                                     |                        |                 |                         |
| 25                 | MBMG57          | Phillips | 36N 29E 18               | 07 21 78                        | Well                                    |               | Stock use, water is hard                          | 2180                                 | 9                    | no              | 2230              |   |                        |                 |                         |
| 26                 | MBMG32          | Phillips | 36N 31E 26               | 12 19 78                        | Well                                    |               | Domestic use, water tastes "funny" after a rain   | 1896                                 | 11.9                 | yes             | 2650              | 36                                      |                        |                 | Anderson                |
| 27                 | MBMG34          | Phillips | 36N 31E 26 08            | 07 22 78                        | Well                                    |               | Domestic use                                      | 1400                                 | 14.2                 | no              | 2660              | 70                                      |                        |                 | School district         |
| 28                 | MBMG89          | Phillips | 36N 30E 19               | 07 22 78                        | Well                                    | 8 gpm         | Domestic use, but owners had water in summer      | 760                                  | 9                    | no              | 2250              | 25                                      |                        |                 | Water, D.               |
| 29                 | 76M1858         | Phillips | 37N 32E 35 8CB           | 07 22 78                        | Well                                    |               | Resort well                                       | 3816                                 | 41.3                 | yes             | 2230              | 3188                                    | 331 MDSN               |                 | Sleeping Buffalo Resort |
| 30                 | MBMG26          | Phillips | 34N 29E 15 8B            | 07 22 78                        | Well                                    | 10 gpm        | Domestic use                                      | 2070                                 | 13.7                 | no              | 2840              | 2                                       | 27                     |                 | Morrison                |

GLASGOW 1' x 2' Sheet (Cont.)  
Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>no. | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E=estimated<br>M=measured | Site description  | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name            |
|-------------|--------------|----------|---------------------------|---------------------------------|--|---|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|-------------------------|
| 31          | MBMG39       | Phillips | 34N 31E 10                | 07 02 76 Ditch                  |  | Along road, portable drainage from flowing well         | 1650                                 | 17.7                 | no              | 2410              |                                   |                        | 112DRFT         | Green, Jean             |
| 32          | MBMG37       | Phillips | 34N 31E 09 DB             | 12 19 76 Well                   |  | Flowing well, domestic use                              | 2553                                 | 9                    | yes             | 2500              |                                   |                        |                 | Austin                  |
| 33          | MBMG38       | Phillips | 34N 31E 09 DB             | 07 22 76 Sep                    |  | Result of flowing well                                  | 2480                                 |                      | no              | 2480              |                                   |                        |                 | Whitaker                |
| 34          | MBMG39       | Phillips | 34N 31E 15 ACD            | 12 20 76 Spring                 |  | Domestic use, has bad odor and taste, filtration needed | 3431                                 | 11                   | yes             | 2430              |                                   |                        |                 | Hanson                  |
| 35          | MBMG40       | Phillips | 34N 32E 14 CC             | 07 23 76 Well                   |  | Domestic use  | 1470                                 | 11                   | no              | 2740              |                                   | 90                     |                 |                         |
| 36          | MBMG79       | Phillips | 32N 34E 07 DCC            | 12 20 76 Well                   | 12 gpm                                     | Stock use only, hard drinking water                     | 2734                                 | 8                    | yes             | 2700              | 21                                | 89                     | 110ALVM         | Lamb                    |
| 37          | MBMG41       | Phillips | 34N 33E 07                | 07 23 76 Well                   | 6 gpm                                      | Domestic and irrigation use                             | 2270                                 | 10.1                 | no              | 2700              | 48                                | 40                     |                 | Olson                   |
| 38          | MBMG77       | Phillips | 32N 33E 28 CCA            | 07 23 76 Well                   | 5 gpm                                      | Domestic use  | 830                                  | 14.8                 | no              | 2190              | 15                                | 40                     |                 | Hanson                  |
| 39          | MBMG42       | Phillips | 33N 31E 28 CACC           | 07 23 76 Creek                  |  |   |                                      |                      | no              | 2200              |                                   |                        |                 | White                   |
| 40          | MBMG72       | Phillips | 32N 33E 16 BA             | 12 20 76 Well                   | 16 gpm                                     | Domestic use  | 1508                                 | 8                    | yes             | 2240              | 10                                | 30                     |                 | Eklund, A               |
| 41          | MBMG75       | Phillips | 32N 33E 20 DAC            | 07 23 76 Well                   | 10 gpm                                     | Old stock well  | 750                                  | 14.4                 | no              | 2210              | 49                                | 89                     |                 | Costin                  |
| 42          | MBMG74       | Phillips | 32N 33E 20 DAC            | 07 23 76 Well                   | 15 gpm                                     | Stock use   | 490                                  | 14                   | no              | 2210              | 60                                | 95                     |                 | Costin                  |
| 43          | MBMG73       | Phillips | 32N 33E 17 DA             | 07 23 76 Well                   | 18 gpm                                     | Stock use   | 4560                                 | 13                   | no              | 2230              | 27                                | 118                    |                 | Hanson                  |
| 44          | MBMG43       | Phillips | 32N 33E 13                | 07 23 76 Spring                 |  | Domestic use  | 870                                  | 18.1                 | no              | 2320              |                                   |                        |                 | Haynes                  |
| 45          | MBMG78       | Phillips | 32N 33E 25 8CB            | 12 20 76 Well                   | 1 gpm                                      | Domestic use except for drinking, well yield decreasing | 5290                                 | 9                    | yes             | 2190              | 60                                | 135                    |                 | Caves                   |
| 46          | MBMG71       | Phillips | 32N 31E 30 DBDA           | 07 22 78 River                  |  | Milk River  |                                      |                      | no              | 2200              |                                   |                        |                 | Hanson                  |
| 47          | MBMG76       | Phillips | 32N 29E 14                | 07 22 78 Well                   |  | Domestic end stock use, water is high in sodium         | 1620                                 |                      | no              | 2200              |                                   |                        |                 | Geest                   |
| 48          | 5BM0003      | Phillips | 29N 31E 24 DC             | 01 20 65 Well                   |  | Domestic use  | 3480                                 | 14.9                 | yes             | 2400              |                                   |                        | 331MOSN         | Ashfield                |
| 49          | MBMG47       | Phillips | 31N 29E 02 DBA            | 07 22 78 Well                   |  | Domestic use, use water w/ sealer, has a sulphur odor   | 1620                                 |                      | no              | 2420              | 8                                 | 10                     |                 | Barnard, Howard         |
| 60          | MBMG68       | Phillips | 31N 32E 15                | 07 22 78 Well                   | 8 gpm                                      | Domestic use, water is hot, has a sulphur smell         | 1580                                 | 12                   | no              | 2250              | 90                                | 141                    |                 | Emmerton                |
| 51          | MBMG68       | Phillips | 31N 32E 02 8B             | 12 20 76 Well                   |  | Flowing well, water is hot, has a sulphur smell         | 2315                                 | 28                   | yes             | 2240              | Flowing                           |                        |                 | Stepping Buffalo Resort |
| 52          | MBMG85       | Phillips | 31N 33E 02 8B             | 07 23 76 Well                   |  | Domestic use  | 1020                                 | 14.9                 | no              | 2240              |                                   |                        |                 |                         |
| 53          | MBMG89       | Phillips | 31N 33E 01 A              | 07 24 78 Ditch                  |  | Irrigation ditch along road                             | 600                                  | 24                   | no              | 2180              |                                   |                        |                 |                         |
| 54          | MBMG83       | Phillips | 32N 33E 36                | 07 24 78 Ditch                  |  | Irrigation ditch, much siltage                          | 770                                  | 21                   | no              | 2180              |                                   |                        |                 |                         |
| 55          | MBMG87       | Phillips | 31N 32E 13                | 07 22 76 Creek                  |  | Beaver Creek, N side of bridge                          | 780                                  | 21                   | no              | 2280              |                                   |                        |                 |                         |
| 56          | MBMG81       | Phillips | 32N 34E 26 CCC            | 12 20 76 Well                   | 16 gpm                                     | Domestic use  | 2631                                 | 9                    | yes             | 2260              | 83                                | 96                     |                 | Abus, Jerry             |
| 57          | MBMG76       | Phillips | 30N 33E 28                | 07 22 78 Ditch                  |  | Irrigation ditch  | 640                                  | 24.5                 | no              | 2210              |                                   |                        |                 | Hanson                  |
| 58          | MBMG76       | Phillips | 30N 34E 23                | 07 22 78 Creek                  |  | Lebo Creek  | 1890                                 | 23                   | no              | 2270              |                                   |                        |                 | Yates                   |
| 59          | MBMG100      | Phillips | 32N 33E 28                | 07 22 78 Well                   |  |   | 2150                                 | 23                   | no              | 2270              |                                   |                        |                 | Abus, Emil              |
| 60          | MBMG82       | Phillips | 32N 34E 33 BAA            | 12 20 78 Well                   |  | Water hardness at 14 grains per gallon                  | 2114                                 | 7.6                  | yes             | 2260              |                                   | 53                     |                 |                         |

## GLASGOW 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no. | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description  | Specific<br>conductivity<br>at 25°C | Field<br>temp | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name  |
|-------------|--------------|----------|---------------------------|---------------------------------|--|---|-------------------------------------|---------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|---------------|
| 61          | MBMG98       | Phillips | 30N 32E 08 8B             | 07 22 76 Creek                  |  | Full of moles   | 1450                                | 20            | no              | 2260              | 26                                | 42                     |                 | Svenson       |
| 62          | MBMG95       | Phillips | 30N 31E 18                | 07 23 76 Well                   | 8 gpm  | Domestic use except for drinking                            | 2610                                | 11            | no              | 2250              | 26                                | 42                     |                 | Arms          |
| 63          | MBMG93       | Phillips | 30N 30E 03 DCCA           | 07 23 76 Well                   | 6 gpm  | Domestic use, water is slightly hard with iron              | 1360                                | 10.4          | no              | 2250              | 30                                | 65                     |                 | Waters        |
| 64          | MBMG91       | Phillips | 30N 30E 02 CAB            | 07 23 76 Well                   | 10 gpm   | Domestic use, water corrodes pipes, water softener needed   | 1150                                | 20.5          | no              | 2280              | 30                                | 65                     |                 | Siles, C.     |
| 65          | MBMG96       | Phillips | 30N 31E 14                | 07 22 76 Well                   |  | Domestic use, water corrodes pipes, water softener needed   | 2650                                | 14.6          | no              | 2280              | 30                                | 65                     |                 | Siles, C.     |
| 66          | MBMG97       | Phillips | 30N 31E 14                | 07 22 76 Well                   | 4 gpm  | Stock use   | 2780                                | 7             | no              | 2280              | 60                                | 100                    | 110ALVM         | Siles, C.     |
| 67          | MBMG84       | Phillips | 31N 30E 34 BACA           | 12 20 76 Well                   |  | Domestic use, but can't drink water even with softener      | 3418                                | 12            | no              | 2220              | 80                                | 110ALVM                |                 | Siles, Robert |
| 68          | MBMG94       | Phillips | 30N 30E 14                | 07 23 76 Well                   |  | Domestic use  | 900                                 | 26            | no              | 2280              | 20                                | 75                     |                 | Smith         |
| 69          | MBMG64       | Phillips | 30N 30E 09 DAC            | 07 23 76 Well                   |  | Domestic use  | 1080                                | 11.9          | no              | 2270              | 300                               | 300                    |                 | Sims          |
| 70          | MBMG63       | Phillips | 30N 30E 08 ABCC           | 12 20 76 Well                   |  | Domestic use except for drinking, water used for irrigation | 3545                                | 0             | yes             | 2240              |                                   |                        |                 | Ryan          |
| 71          | MBMG62       | Phillips | 30N 30E 19                | 07 22 76 Well                   | 8 gpm  | Domestic use, needs a water softener                        | 2950                                | 12            | no              | 2700              | 150                               |                        |                 | Milk, B.      |
| 72          | MBMG60       | Phillips | 30N 29E 12 BICA           | 07 21 76 Well                   | 26 gpm   | Located 400 feet S of house, water is soft                  | 2130                                | 17            | no              | 2280              | 14                                | 48                     |                 | Holman        |
| 73          | MBMG58       | Phillips | 30N 29E 12 8BDD           | 07 21 76 Spring                 | 10 gpm   | Located 100 feet N of house                                 | 1110                                | 12.6          | no              | 2280              | 10                                | 50                     |                 | Holman        |
| 74          | MBMG57       | Phillips | 30N 29E 12 8BDD           | 07 21 76 Spring                 | 10 gpm   | Domestic and stock use, improved spring in 1974             | 1150                                | 9             | no              | 2260              | 10                                | 50                     |                 | Green, Dale   |
| 75          | MBMG101      | Phillips | 29N 30E 22                | 07 22 76 Well                   | 20 gpm   | Stock use, feed drinking and wash water                     | 3600                                | 12            | no              | 2600              | 180                               | 375                    | 211BDRV         | Lundman, G    |
| 76          | MBMG102      | Phillips | 29N 32E 21                | 07 22 76 Creek                  |  | Beaver Creek  | 660                                 | 22            | no              | 2280              |                                   |                        |                 |               |
| 77          | MBMG70       | Phillips | 29N 30E 07                | 07 22 76 Pond                   |  | At W side of road   | 650                                 | 19            | no              | 2600              |                                   |                        |                 |               |
| 78          | MBMG103      | Phillips | 29N 32E 24                | 07 22 76 Pond                   | no flow  | W side of road  | 210                                 | 20            | no              | 2650              |                                   |                        |                 |               |
| 79          | MBMG104      | Phillips | 29N 32E 26                | 07 22 76 Well                   | 18 gpm   | Domestic use  | 1930                                | 13            | no              | 2600              | 60                                | 120                    |                 | Marin, F.     |
| 80          | MBMG136      | Phillips | 29N 32E 04                | 07 22 76 Well                   | 3 gpm  | Domestic use except for drinking and stock use              | 2840                                | 11            | no              | 2530              | 250                               |                        |                 | Solberg, I.   |
| 81          | MBMG126      | Phillips | 29N 32E 06                | 07 22 76 Well                   | 12 gpm   | Stock and domestic use                                      | 3530                                | 12            | no              | 2600              | 300                               |                        |                 | Henry, G.     |
| 82          | MBMG124      | Phillips | 29N 31E 24                | 07 22 76 Well                   | 2 gpm  | Domestic use  | 840                                 | 16            | no              | 2650              | 40                                | 150                    |                 | Adams         |
| 83          | MBMG133      | Phillips | 29N 31E 22                | 07 22 76 Well                   | 2 gpm  | Domestic use except for drinking                            | 4880                                | 12            | no              | 2650              | 60                                | 120                    |                 | Bergsagel     |
| 84          | MBMG131      | Phillips | 29N 31E 07                | 07 22 76 Well                   | 1.5 gpm  | Domestic use  | 6350                                | 18            | no              | 2650              | 60                                | 120                    |                 | Hendrickson   |
| 85          | MBMG132      | Phillips | 29N 31E 07                | 07 22 76 Well                   |  | Stock use   | 480                                 | 9             | no              | 2650              | 12                                |                        |                 | Hendrickson   |
| 86          | MBMG129      | Phillips | 29N 30E 21                | 07 22 76 Creek                  | no flow  | Domestic use  | 710                                 | 19            | no              | 2450              | 26                                | 40                     |                 | Lafald        |
| 87          | MBMG130      | Phillips | 29N 30E 24                | 07 22 76 Well                   | 7.5 gpm  | Water is high in sodium and unfit for human use             | 2740                                | 14            | no              | 2540              | 26                                | 40                     |                 |               |
| 88          | MBMG138      | Phillips | 27N 31E 35 8DB            | 07 23 76 Well                   | 1 gpm  | Seep outcrop around pond, algae sample taken                | 7650                                | 13.9          | no              | 2400              | flowing                           | 90                     |                 |               |
| 89          | MBMG138      | Phillips | 27N 31E 28 CD             | 07 23 76 Pond                   | no flow  | Seep outcrop around pond, algae sample taken                | 3650                                | 28.5          | no              | 2400              | 2400                              | 2400                   |                 |               |
| 90          | MBMG140      | Phillips | 27N 31E 35 DDB            | 07 23 76 Well                   | 1 gpm  | Located 200 yards S of house                                | 6010                                | 12.2          | no              | 2400              | flowing                           | 290                    |                 |               |

## GLASGOW 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref.<br>no. | Field<br>no. | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description  | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name          |
|--------------------|--------------|----------|---------------------------|---------------------------------|--|---|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|-----------------------|
| 81                 | MBMG141      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   | 1 gpm  | Located 250 yards W of house                                | 8270                                 | 10.9                 | no              | 2400              | flowing                           | 90                     |                 | Thompson<br>Barthelme |
| 82                 | MBMG142      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   | 20 gpm   | Water serves entire ranch, well located 400 feet from house | 2820                                 | 14.9                 | no              | 2350              |                                   | 800                    |                 |                       |
| 83                 | MBMG143      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   | 20 gpm   | Located 100 yards S of section line                         | 2100                                 | 14.9                 | no              | 2350              |                                   | 800                    |                 |                       |
| 84                 | MBMG144      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   | 17.7 cfm                                       | Water is hard   | 1180                                 | 14.1                 | no              | 2300              | 25                                | 43                     |                 | Ozert                 |
| 85                 | MBMG145      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   | 8 gpm  | Water is unfit for drinking, has a rancid odor              | 3110                                 | 18.2                 | no              | 2320              | 4                                 | 40                     |                 | McEwen                |
| 86                 | MBMG146      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   | 30 gpm   | Domestic use  | 1310                                 | 13                   | no              | 2250              |                                   |                        |                 | Henderson             |
| 87                 | MBMG147      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, very hard water, use ion exchanger            | 1370                                 | 11.9                 | no              | 3000              | 18                                | 70                     |                 | U.S. Customs          |
| 88                 | MBMG148      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use but have to distill it to drink it             | 600                                  | 12.8                 | no              | 3100              | 185                               | 300                    |                 | Drivog                |
| 89                 | MBMG149      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Stock and domestic use, forms deposit on fixtures           | 820                                  | 9.9                  | no              | 3100              | 185                               | 360                    |                 | Orwig                 |
| 90                 | MBMG150      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is hard                                 | 1990                                 | 15.1                 | no              | 3000              | 300                               | 300                    |                 | Stallig               |
| 91                 | MBMG151      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is very hard and bad tasting            | 2120                                 | 15.3                 | no              | 2850              | 8                                 | 8                      |                 | Nelson                |
| 92                 | MBMG152      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is high in iron, softener used          | 860                                  | 20.5                 | no              | 2840              |                                   |                        |                 | Ries, Don             |
| 93                 | MBMG153      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is moderately hard, use rust filter     | 780                                  | 13.1                 | no              | 2850              | 28                                | 28                     |                 | Burris                |
| 94                 | MBMG154      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is moderately hard, use rust filter     | 920                                  | 14.1                 | no              | 2950              | 100                               | 100                    |                 | Zimmer                |
| 95                 | MBMG155      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is moderately hard, use rust filter     | 810                                  | 10                   | no              | 3100              | 20                                | 60                     |                 | Ries, Don             |
| 96                 | MBMG156      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is moderately hard, use rust filter     | 870                                  | 10.3                 | no              | 2850              | 14                                | 85                     |                 |                       |
| 97                 | MBMG157      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is high in iron, softener used          | 860                                  | 11.8                 | no              | 3000              |                                   | 130                    |                 | Dryland               |
| 98                 | MBMG158      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Stock use, water has a rusty color                          | 1220                                 | 9.2                  | no              | 3060              |                                   |                        |                 | Jackson               |
| 99                 | MBMG159      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use  | 570                                  | 10.4                 | no              | 3060              |                                   | 90                     |                 | Westby                |
| 100                | MBMG160      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use  | 830                                  | 12.7                 | no              | 3100              | 38                                | 42                     |                 |                       |
| 101                | MBMG161      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is rusty colored, is filtered           | 850                                  | 10.1                 | no              | 3120              | 229                               | 287                    |                 | Heflock               |
| 102                | MBMG162      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is moderately hard, use rust filter     | 760                                  | 10.2                 | no              | 3050              | 100                               | 100                    |                 | Dryden                |
| 103                | MBMG163      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Domestic use, water is moderately hard, use rust filter     | 1160                                 | 12.2                 | no              | 2950              | 100                               | 100                    |                 | Flint, K.             |
| 104                | MBMG164      | Phillips | 27N 31E 26 S08            | 07 23 78 Well                   |  | Used for watering lawn, water is rusty colored              | 3507                                 | 6                    | yes             | 2900              | 20                                | 20                     |                 | Floyd, Robert         |

GLASGOW 1° x 2<sup>c</sup> Sheet (Con't.)

| Map sheet no. | Field number    | County | Location        | Collection date | Flow or yield E = estimated M = measured                       | Site description | Specific conductivity at 25 °C | Field temp. °C | Altitude (ft.) | Static water level depth (ft.) | Well code   | Owner name          |
|---------------|-----------------|--------|-----------------|-----------------|--|------------------|--------------------------------|----------------|----------------|--------------------------------|-------------|---------------------|
| 100           | 36N 36E 26      | Valley | 36N 36E 26      | 07 27 76 Well   | Stock use, located 500 feet E of house                         | 1750             | 7.9                            | no             | 2900           | 5                              | 12          | Floyd, Robert       |
|               | 36N 36E 28      | Valley | 36N 36E 28      | 07 27 76 Well   | Domestic use, located 100 feet E of house                      | 1420             | 20.1                           | no             | 2900           | 5                              | 16          | Floyd, Robert       |
|               | 37N 36E 24 BC   | Valley | 37N 36E 24 BC   | 07 27 76 Creek  | West Fork Creek  | 480              | 21.1                           | no             | 2930           |                                |             | Floyd, Robert       |
|               | 37N 36E 25 BB   | Valley | 37N 36E 25 BB   | 07 27 76 Creek  | Flank creek, reservoir may be autogenic                        | 2500             | 21.1                           | no             | 2930           |                                |             | Floyd, Robert       |
|               | 38N 36E 23 DC   | Valley | 38N 36E 23 DC   | 07 27 76 Creek  | Flock Creek, salt on bank, collected upper sample              | 680              | 21.8                           | no             | 2340           |                                |             |                     |
|               | 36N 36E 33 DC   | Valley | 36N 36E 33 DC   | 07 27 76 Well   | Sand point in barnyard of house, water very hard, seep         |                  |                                | no             | 2370           | 10                             |             | Jensen              |
|               | 34N 36E 04 DB   | Valley | 34N 36E 04 DB   | 07 27 76 Well   | Stock use  | 1850             | 14                             | no             | 2360           | 23                             | 16          | Lewis               |
|               | 34N 36E 04 DB   | Valley | 34N 36E 04 DB   | 07 27 76 Well   | Domestic use, water very hard, has been analyzed               | 1280             | 13.2                           | no             | 2360           | 26                             |             | Lewis               |
|               | 34N 36E 02      | Valley | 34N 36E 02      | 07 27 76 Well   | Domestic use, has a soda taste                                 | 1260             | 9.9                            | no             | 2560           | 260                            |             | Johnson             |
|               | 35N 36E 32 CDD  | Valley | 35N 36E 32 CDD  | 12 17 78 Well   | Domestic use except for drinking, water has been analyzed      | 6532             | 10                             | yes            | 2560           | 210                            | 340 2113DRV | Arnett, Jim         |
|               | 36N 35E 32      | Valley | 36N 35E 32      | 12 17 78 Well   | Domestic use, water is hard, yield is small                    | 1930             | 8                              | yes            | 2650           |                                | 11 1202RET  | Arnett, Jim         |
|               | 31N 35E 36      | Valley | 31N 35E 36      | 07 26 76 Well   | Domestic and stock use, water has been analyzed                | 2260             | 13.8                           | no             |                |                                |             | Henitz, John        |
|               | 31N 36E 36      | Valley | 31N 36E 36      | 07 26 76 Well   | Domestic use except for drinking                               | 2490             | 14.1                           | no             | 3200           | 13                             | 62          | Henitz, John        |
|               | 31N 36E 37      | Valley | 31N 36E 37      | 07 26 76 Well   | Domestic use except for drinking                               | 5680             | 11                             | no             | 3200           | 30                             |             | Beale, B.           |
|               | 30N 37E 06 CADB | Valley | 30N 37E 06 CADB | 07 26 76 Well   | Water is used for drinking, residents have gotten sick from it | 4820             | 16.2                           | no             | 3130           | 104                            | 165         | Bele                |
| 101           | 30N 35E 27      | Valley | 30N 35E 27      | 07 26 76 Well   | Domestic use   | 780              | 19.8                           | no             | 2750           | 60                             |             | Court               |
|               | 30N 37E 15 D    | Valley | 30N 37E 15 D    | 07 28 76 Well   | Domestic use except for drinking and cooking                   | 2680             | 17.7                           | no             | 2120           | 26                             | 83          | Vendola Post Office |
|               | 30N 36E 09 CA   | Valley | 30N 36E 09 CA   | 07 28 76 Well   | At highway rest area   | 1770             | 12.9                           | no             | 2130           | 37                             |             | Highway Department  |
|               | 29N 36E 14 CAB  | Valley | 29N 36E 14 CAB  | 12 18 78 Well   | Domestic use, water is salt                                    | 2120             | 21.2                           | yes            | 2120           | 187                            |             | Lightmeter, Dade    |
|               | 31N 42E 10      | Valley | 31N 42E 10      | 07 27 76 Creek  | East Fork Potomac Creek  | 3140             | 18                             | no             | 2680           |                                |             |                     |
|               | 31N 42E 32      | Valley | 31N 42E 32      | 07 27 76 Pond   | Standing water in a cooler at roadside                         | 1080             | 16                             | no             | 2800           |                                |             | Twinsay             |
|               | 31N 42E 32      | Valley | 31N 42E 32      | 07 27 76 Well   | Domestic use, water is hard, use a softener                    | 1750             | 16                             | no             | 2700           | 8                              | 18          | Twinsay             |
|               | 29N 42E 01      | Valley | 29N 42E 01      | 07 27 76 Well   | Domestic use except for drinking                               | 4280             | 17                             | no             | 2760           | 17                             |             | Moore, Joseph       |
|               | 29N 42E 01      | Valley | 29N 42E 01      | 07 27 76 Well   | Domestic use   | 1610             | 11                             | no             | 2760           | 46                             |             | Althaus, M.         |
|               | 29N 42E 04      | Valley | 29N 42E 04      | 07 27 76 Well   | Domestic use   | 1360             | 10.6                           | no             | 2760           | 70                             |             | Nylander, D.        |
|               | 29N 41E 09      | Valley | 29N 41E 09      | 07 27 76 Well   | Stock use  | 800              | 10.6                           | no             | 2260           | 10                             |             | Hill, C.            |
|               | 29N 41E 10      | Valley | 29N 41E 10      | 07 27 76 Well   | Stock use  | 900              | 12                             | no             | 2380           | 14                             |             | Geer, Miles         |
|               | 29N 41E 13      | Valley | 29N 41E 13      | 07 27 78 Well   | Domestic and stock use   | 890              | 14                             | no             | 2380           | 20                             |             | Geer, Miles         |
|               | 29N 41E 15      | Valley | 29N 41E 15      | 07 27 78 Well   | Domestic and stock use, neighbors haul water from them         | 680              | 12                             | no             | 2420           | 160                            |             | Hill, C.            |
|               | 29N 41E 15      | Valley | 29N 41E 15      | 07 27 78 Pond   | Creek ponded by road   | 200              | 14.9                           | no             | 2410           |                                |             | Hill, C.            |

GLASGOW 1" x 2" Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>number | County | Location<br>T R Sec. Tract | Collection<br>Mo Day Yr | Flow or yield<br>Estimated<br>E = estimated<br>M = measured | Site description   | Specific<br>conductivity<br>at 25 C | Field<br>temp. | Lab<br>analyst | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name   |
|-------------|-----------------|--------|----------------------------|-------------------------|---|--|-------------------------------------|----------------|----------------|-------------------|-----------------------------------|------------------------|-----------------|----------------|
| 151         | MBMG109         | Valley | 28N 42E 06                 | 12 17 76 Well           | 0 gpm (E)   | Domestic use   | 3251                                | 9              | yes            | 2150              | 3                                 | 26                     |                 | French, John   |
| 152         | MBMG108         | Valley | 28N 41E 01 BD              | 07 27 76 Creek          | 5 gpm (E)   | Perquimbe Creek  | 1050                                | 25             | no             | 2200              | 19                                | 35                     |                 | Lauchner, Bob  |
| 153         | MBMG110         | Valley | 28N 42E 20                 | 12 17 76 Well           | 8 gpm   | Stock and domestic use                                     | 3114                                | 9              | yes            | 2300              | 30                                | 120                    |                 | Miller         |
| 154         | MBMG55          | Valley | 28N 40E 30 ADD             | 07 24 76 Well           | 3 gpm   | Domestic use and lawn watering                             | 940                                 | 14.8           | no             | 2230              | 98                                | 107                    |                 | Lundell        |
| 155         | MBMG55          | Valley | 29N 40E 32 DGB             | 07 24 76 Well           | 3 gpm   | Stock use  | 900                                 | 13.3           | no             | 2340              | 98                                | 107                    |                 | Lundell        |
| 156         | MBMG57          | Valley | 28N 40E 32 DD              | 07 24 76 Well           | 10 gpm  | Domestic use   | 960                                 | 14.1           | no             | 2340              | 96                                | 111                    |                 | Lundell        |
| 157         | MBMG178         | Valley | 28N 36E 35 CD              | 07 24 76 Well           | 5 gpm   | Well is located behind house, water contains gel and salts | 4570                                | 23.9           | no             | 2150              | 5                                 | 225                    |                 | Cotton, Sydney |
| 158         | MBMG54          | Valley | 28N 38E 12                 | 07 24 76 Well           | 5 gpm   | Water is soft, contains natural gas                        | 4068                                | 12             | yes            | 2110              |                                   | 300                    | 211 DGRV        | Bill Motel     |
| 159         | MBMG53          | Valley | 28N 38E 08                 | 12 18 76 Well           | 5 gpm   | Water is soft, contains natural gas                        | 4068                                | 12             | yes            | 2110              |                                   | 300                    | 211 DGRV        | Bill Motel     |
| 160         | MBMG368         | Valley | 28N 35E 11                 | 07 26 76 Reservoir      | no flow   | On South Fork Antelope Creek                               | 360                                 | 23.1           | no             | 2620              |                                   |                        |                 | Billingbury    |
| 161         | MBMG39          | Valley | 28N 38E 24 AC              | 07 27 76 Pond           | no flow   | Clear water  | 4250                                | 20.9           | no             |                   |                                   |                        |                 |                |
| 162         | MBMG40          | Valley | 28N 38E 24 CC              | 07 27 76 Pond           | no flow   | Muddy water  | 340                                 | 18.2           | no             |                   |                                   |                        |                 |                |
| 163         | MBMG44          | Valley | 28N 38E 26 DD              | 07 27 76 Creek          | no flow   | South Fork Brazil Creek, some alkali                       | 16100                               | 28.5           | no             |                   |                                   |                        |                 |                |
| 164         | MBMG45          | Valley | 28N 36E 26 DD              | 07 27 76 Pond           | no flow   | Clear water, alkali at edges                               | 13300                               | 17.2           | no             |                   |                                   |                        |                 |                |
| 165         | MBMG41          | Valley | 28N 36E 24 CC              | 07 27 76 Creek          | 0.3 cfs   | Muddy water  | 270                                 | 20.5           | no             |                   |                                   |                        |                 |                |
| 166         | MBMG42          | Valley | 28N 38E 26 AA              | 07 27 76 Pond           | no flow   | Alkali around edges  | 1890                                | 21.8           | no             |                   |                                   |                        |                 |                |
| 167         | MBMG43          | Valley | 28N 38E 28 A               | 07 27 76 Pond           | no flow   | Alkali around edges  | 2200                                | 21.3           | no             |                   |                                   |                        |                 |                |
| 168         | MBMG55          | Valley | 27N 36E 01 AAC             | 07 27 76 Creek          | no flow   | Spliffway Creek  | 340                                 | 19.4           | no             |                   |                                   |                        |                 |                |
| 169         | MBMG64          | Valley | 27N 36E 01 AD              | 07 27 76 Reservoir      | no flow   |  | 430                                 | 20.1           | no             |                   |                                   |                        |                 |                |
| 170         | MBMG66          | Valley | 27N 36E 01 ACC             | 07 27 76 Sep            | no flow   | Below dam  | 8080                                | 25.1           | no             |                   |                                   |                        |                 |                |
| 171         | MBMG87          | Valley | 27N 36E 12 DDA             | 07 27 76 Creek          | no flow   | Standing water in creek bed                                | 840                                 | 21.5           | no             |                   |                                   |                        |                 |                |
| 172         | MBMG68          | Valley | 27N 37E 19 A               | 07 27 76 Pond           | no flow   | Contains blue-green algae                                  | 1120                                | 22             | no             |                   |                                   |                        |                 |                |
| 173         | MBMG69          | Valley | 28N 37E 08                 | 07 27 76 Reservoir      | no flow   | Grub Reservoir, very muddy                                 | 730                                 | 20.1           | no             |                   |                                   |                        |                 |                |
| 174         | MBMG71          | Valley | 28N 37E 09 CC              | 07 27 76 Creek          | no flow   | Standing water, alkali around edges                        | 3480                                | 19.8           | no             | 2300              |                                   |                        |                 |                |
| 175         | MBMG70          | Valley | 28N 37E 09 C               | 07 27 76 Reservoir      | no flow   | South Branch Reservoir                                     | 380                                 | 20.8           | no             | 2300              |                                   |                        |                 |                |
| 176         | MBMG72          | Valley | 28N 37E 17 BD              | 07 27 76 Reservoir      | no flow   | Itasca Reservoir   | 410                                 | 20.1           | no             | 2350              |                                   |                        |                 |                |
| 177         | MBMG73          | Valley | 28N 38E 13                 | 07 27 76 Creek          | no flow   | Some alkali deposits along edges                           | 300                                 | 18             | no             | 2380              |                                   |                        |                 |                |
| 178         | MBMG55          | Valley | 27N 40E 04 DBD             | 07 28 76 Pond           | Very ality  |  | 380                                 | 19             | no             | 2100              |                                   |                        |                 |                |
| 179         | MBMG86          | Valley | 27N 40E 29 BB              | 07 28 76 Well           | Stock use, yield small                                      |  | 840                                 | 14             | no             | 2260              | 18                                | 22                     |                 | Hill, F.       |
| 180         | MBMG87          | Valley | 27N 40E 29 BB              | 07 28 76 Well           | Salts upfill from well                                      |  | 3610                                | 14             | no             | 2250              | 25                                | 135                    |                 | Hill, F.       |



GLASGOW 1" x 2" Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E - estimated<br>M - measured | Site description                 | Specific<br>conductivity<br>at 25° C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|--------------------|-----------------|----------|---------------------------|---------------------------------|-----------|--|----------------------------------|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 181                | MBMG58          | Valley   | 26N 40E 13 ABD 8          | 07 28 76                        | Well      |  | Haul water for domestic use      | 4560                                 | 12                   | no              | 2300              | 550                               |                        |                 |              |
| 182                | MBMG111         | Valley   | 28N 41E 38                | 07 27 76                        | Well      |  | Domestic use except for drinking | 1750                                 | 18                   | no              | 2200              | 60                                |                        |                 | Imhot, J     |
| 183                | MBMG112         | Valley   | 27N 42E 22 B              | 07 27 76                        | Well      |  | Stock use                        | 4830                                 | 12                   | no              | 2050              | 30                                |                        | 211FNRH         | Rowek, J     |
| 184                | MBMG009         | Valley   | 27N 42E 02 C              | 08 28 33                        | Well      |  | 3 miles E of Saco                | 2180                                 | yes                  | yes             | 2180              |                                   |                        | 337MSHC         |              |
| 185                | 56MQ016         | Valley   | 33N 43E 18 CA             | 08 24 58                        | Well      |  | 14.5 miles S of Richland         | 4633                                 | yes                  | yes             | 2844              |                                   |                        |                 |              |
| 186                | 68MQ009         | Valley   | 30N 44E 07 DDD            | 07 26 68                        | Well      |  | 21.5 miles N of Fraser           | 4118                                 | yes                  | yes             | 2803              |                                   |                        | 331CRLS         |              |
| 187                | not on map      |          |                           |                                 |           |  |                                  |                                      |                      |                 |                   |                                   |                        |                 |              |
| 188                | MBMG167         | Phillips | 28N 30E 07                | 07 22 76                        | Pond      |  | On W side of road                | 650                                  | 19                   | no              | 2600              |                                   |                        |                 |              |
| 189                | MBMG17          | Daniels  | 27N 43E 16                | 08 04 75                        | Reservoir |  | Lulligard Reservoir              | 390                                  | no                   | no              |                   |                                   |                        |                 |              |
| 190                | 47MQ056         | Valley   | 27N 43E 31 EBB            | 10 09 47                        | Well      |  |                                  | 1900                                 | 9.4                  | yes             | 2038              |                                   |                        | 30 110ALVM      |              |
| 191                | 63MQ059         | Valley   | 27N 44E 32 DCD            | 09 06 63                        | Well      |  | 1 mile SW of Fraser              | 1780                                 | 14.4                 | yes             | 2050              |                                   |                        | 28 110ALVM      |              |
| 192                | 63MQ060         | Valley   | 27N 44E 32 DCD            | 09 06 63                        | Well      |  | 1 mile SW of Fraser              | 1780                                 | 14.4                 | yes             | 2050              |                                   |                        | 211FNRH         |              |
| 193                | 63MQ061         | Phillips | 27N 31E 09 AB             | 08 20 63                        | Well      |  | Muddy water                      | 1451                                 | yes                  | yes             | 2451              |                                   |                        | 211FNRH         |              |
| 194                | 63MQ056         | McCone   | 26N 44E 10 BCC            | 09 06 63                        | Well      |  | 2.5 miles S of Fraser            | 1160                                 | yes                  | yes             | 2069              |                                   |                        | 18 110ALVM      |              |

## GLASGOW

## Chemical Analysis

| Map<br>ref.<br>no. | T   | R   | Sec | Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Sicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|-----|-----|-----|-------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 21                 | 35N | 30E | 31  |       | 12 19 76                        | Well   | 76              | 105                    | 352            | 7.1                   | 1.46         | .01                    | 12.6                          | 1111                                    |                                      | 33               | 475                           |
| 26                 | 35N | 31E | 26  |       | 12 19 76                        | Well   | 13              | 12.8                   | 430            | 4.8                   | .13          | .15                    | 9.2                           | 784                                     | 19.2                                 | 66.5             | 244                           |
| 29                 | 32N | 32E | 35  | CD8   | 07 22 76                        | Well   | 490             | 174                    | 293            | 25.4                  | .03          | .02                    | 17.1                          | 151                                     |                                      | 195.5            | 2147                          |
| 32                 | 34N | 31E | 09  | DB    | 12 19 76                        | Well   | 93.6            | 44                     | 478            | 7.3                   | .90          | .50                    | 18.6                          | 799                                     | 15.4                                 | 33               | 682                           |
| 34                 | 32N | 34E | 15  | ACD   | 12 20 76                        | Spring | 264             | 182                    | 402            | 7.8                   | .11          | .01                    | 13.1                          | 346                                     |                                      | 53               | 1834                          |
| 36                 | 32N | 34E | 07  | DCC   | 12 20 76                        | Well   | 303             | 177                    | 955            | 10                    | .12          | 1.53                   | 12.7                          | 742                                     |                                      | 406              | 2288                          |
| 40                 | 32N | 33E | 16  | BA    | 12 20 76                        | Well   | 50              | 28                     | 260            | 5.9                   | .05          | .07                    | 10.5                          | 476                                     |                                      | 39               | 335                           |
| 45                 | 32N | 33E | 25  | BCB   | 12 20 76                        | Well   | 5.8             | 4.0                    | 1195           | 3.8                   | .05          | .04                    | 4.3                           | 987                                     |                                      | 1339             | .8                            |
| 48                 | 29N | 31E | 24  | DC    | 01 20 56                        | Well   | 520             | 150                    | 160*           |                       |              |                        |                               | 156                                     |                                      | 100              | 1900                          |
| 51                 | 31N | 32E | 02  | BB    | 12 20 76                        | Well   | 55              | 23.2                   | 466            | 7.2                   | .10          | .07                    | 17.5                          | 757                                     |                                      | 39               | 580                           |
| 58                 | 32N | 34E | 29  | CCC   | 12 20 76                        | Well   | 140             | 42                     | 442            | 5.9                   | .24          | .19                    | 18.4                          | 724                                     |                                      | 95               | 716                           |
| 60                 | 32N | 34E | 33  | BAA   | 12 20 76                        | Well   | 98              | 49.5                   | 320            | 7.2                   | .15          | <.01                   | 16.2                          | 416                                     |                                      | 118              | 563                           |
| 67                 | 31N | 30E | 34  | BACA  | 12 20 76                        | Well   | 78              | 31                     | 705            | 8.9                   | .54          | .43                    | 16.5                          | 773                                     |                                      | 74               | 1072                          |
| 70                 | 30N | 30E | 06  | ABCC  | 12 20 76                        | Well   | 546             | 164                    | 310            | 25.2                  | .34          | .02                    | 15.4                          | 150                                     |                                      | 209              | 2194                          |
| 117                | 36N | 38E | 26  | AA    | 12 17 76                        | Well   | 71.2            | 41.2                   | 30             | 5.6                   | .04          | <.01                   | 17.8                          | 268                                     |                                      | 30.4             | 136                           |
| 120                | 36N | 38E | 26  |       | 12 17 76                        | Well   | 230             | 243                    | 320            | 34.8                  | 2.14         | .85                    | 18.7                          | 1295                                    |                                      | 79               | 1068                          |
| 130                | 35N | 35E | 32  | CDD   | 12 17 76                        | Well   | 23.8            | 6.7                    | 1350           | 5.0                   | .12          | .03                    | 7.4                           | 686                                     |                                      | 126              | 2187                          |
| 131                | 35N | 36E | 32  |       | 12 17 76                        | Well   | 196             | 126                    | 92             | 15.3                  | .01          | .11                    | 13.6                          | 664                                     |                                      | 16.5             | 621                           |
| 138                | 29N | 38E | 14  | CAA8  | 12 18 76                        | Well   | 3.2             | 1.0                    | 760            | 2.0                   | .02          | <.01                   | 7.1                           | 1179                                    | 9.8                                  | 464              | .6                            |
| 151                | 28N | 42E | 06  |       | 12 17 76                        | Well   | 179             | 99                     | 463            | 8.3                   | <.01         | .01                    | 16.4                          | 352                                     |                                      | 163              | 1131                          |
| 153                | 28N | 42E | 20  |       | 12 17 76                        | Well   | 114             | 79.2                   | 520            | 9.5                   | .01          | .01                    | 15.6                          | 301                                     |                                      | 110              | 1263                          |
| 159                | 28N | 39E | 08  |       | 12 18 76                        | Well   | 6.1             | 1.4                    | 950            | 2.5                   | .07          | <.01                   | 7.9                           | 1167                                    |                                      | 823              | 11.5                          |
| 184                | 31N | 34E | 02  | C     | 09 26 33                        | Well   | 59              | 64                     | 3300*          |                       |              |                        |                               | 310                                     |                                      | 5100             |                               |
| 186                | 33N | 43E | 16  | CA    | 08 24 56                        | Well   | 430             | 79                     | 840*           |                       |              |                        |                               | 465                                     |                                      | 900              | 1500                          |
| 186                | 30N | 44E | 07  | DDD   | 07 26 68                        | Well   | 690             | 170                    | 9600*          |                       |              |                        |                               | 370                                     |                                      | 14000            | 3700                          |
| 190                | 27N | 43E | 31  | BBB   | 10 09 47                        | Well   | 161             | 81                     | 193            | 16                    | .30          |                        | 16                            | 441                                     |                                      | 25               | 672                           |
| 191                | 27N | 44E | 32  | CCD   | 09 05 63                        | Well   |                 |                        | 228            |                       | .35          |                        |                               | 382                                     |                                      |                  | 650                           |
| 192                | 29N | 36E | 03  | CAA   | 11 15 57                        | Well   | 39              | 18                     | 3600*          |                       |              |                        |                               | 660                                     | 74                                   | 5200             | 21                            |
| 193                | 32N | 31E | 09  | AB    | 06 20 69                        | Well   | 12              | 1                      | 960            | 15                    |              |                        |                               | 2110                                    | 84                                   | 180              | 58                            |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

1° x 2° Sheet

## of Selected Waters

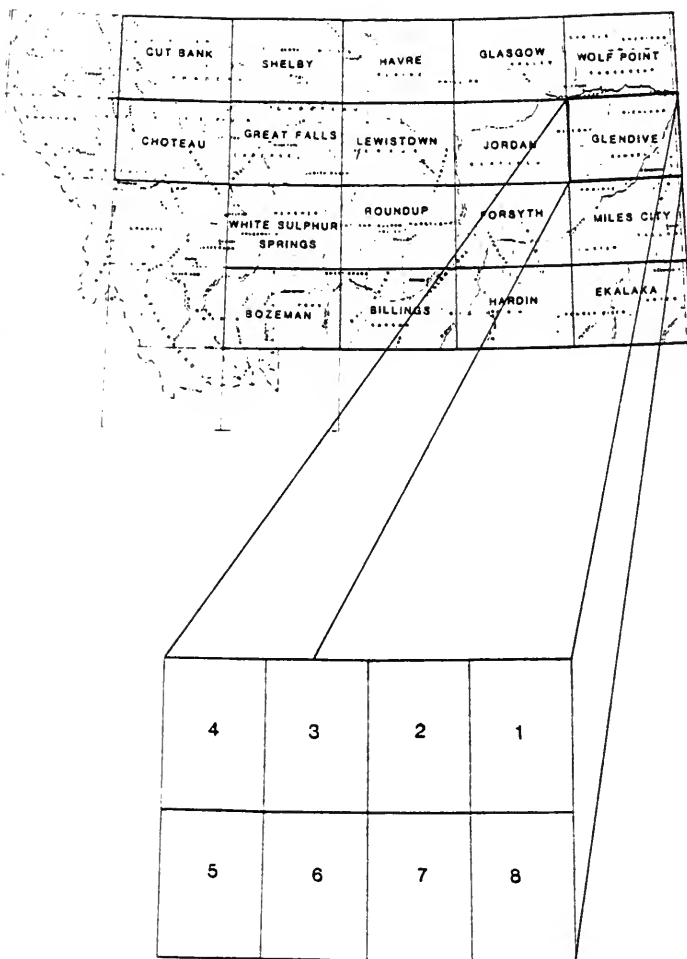
| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Field<br>pH | Temp.<br>C | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-------------|------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 21                 | .029           | .4              | 7.27        | 12         | 2462  | 1620                           | 622                                       | 911   | 6.3                           | MBMG                 | 220                    | 211JDRV         | yes                           | 76M1508       |
| 26                 | .032           | .6              | 8.57        | 10         | 1896  | 1186                           | 65  | 875   | 20.3                          | MBMG                 | 35                     |                 | yes                           | 76M1509       |
| 29                 | .039           | 2.9             | 7.38        | 41.3       | 3915  | 3419                           | 1940                                      | 124   | 2.9                           | USGS                 | 3188                   | 331MDSN         | yes                           | 76M1659       |
| 32                 | .303           | .4              | 8.53        | 9          | 2553  | 1763                           | 415                                       | 673   | 10.2                          | MBMG                 |                        | 112DRFT         | yes                           | 76M1510       |
| 34                 | 2.350          | .3              | 7.64        | 11         | 3431  | 2929                           | 1410                                      | 284   | 4.7                           | MBMG                 |                        |                 | yes                           | 76M1514       |
| 36                 | <.023          | .4              | 7.65        | 6          | 2734  | 4519                           | 1480                                      | 609   | 10.8                          | MBMG                 | 89                     | 110ALVM         | yes                           | 76M1513       |
| 40                 | .165           | .4              | 7.88        | 8          | 1508  | 964                            | 240                                       | 390   | 7.3                           | MBMG                 | 30                     |                 | yes                           | 76M1515       |
| 45                 | <.023          | .9              | 8.29        | 9          | 5290  | 3040                           | 31  | 810   | 93.5                          | MBMG                 | 135                    |                 | yes                           | 76M1512       |
| 48                 |                |                 | 8.40        |            |   |                                | 1920                                      | 128   |                               | Unknown              |                        | 331MDSN         | no                            | 55M0003       |
| 51                 | <.023          | .4              | 7.93        | 28         | 2315  | 1541                           | 233                                       | 621   | 13.3                          | MBMG                 |                        |                 | yes                           | 76M1516       |
| 58                 | .249           | .4              | 7.63        | 9          | 2531  | 1817                           | 552                                       | 594   | 8.4                           | MBMG                 | 96                     |                 | yes                           | 76M1519       |
| 60                 | 19.654         | .5              | 7.77        | 7.5        | 2114  | 1396                           | 448                                       | 341   | 6.8                           | MBMG                 | 53                     |                 | yes                           | 76M1511       |
| 67                 | <.023          | .6              | 8.25        | 12         | 3418  | 2366                           | 322                                       | 634   | 17.1                          | MBMG                 | 90                     | 110ALVM         | yes                           | 76M1518       |
| 70                 | <.023          | 3.0             | 7.57        | 0          | 3945  | 3541                           | 2040                                      | 123   | 3.0                           | MBMG                 | 300                    |                 | yes                           | 76M1517       |
| 117                | 4.560          | .2              | 7.47        | 10         | 766   | 489                            | 347                                       | 220   | .7                            | MBMG                 | 40                     |                 | yes                           | 76M1500       |
| 120                | .075           | .3              | 7.28        | 6          | 3507  | 2623                           | 1570                                      | 1060  | 3.5                           | MBMG                 | 20                     |                 | yes                           | 76M1501       |
| 130                | .041           | .3              | 8.25        | 10         | 5582  | 4034                           | 87  | 546   | 63.0                          | MBMG                 | 340                    | 211JDRV         | yes                           | 76M1502       |
| 131                | .106           | <.1             | 7.59        | 8          | 1939  | 1408                           | 1010                                      | 545   | 1.3                           | MBMG                 | 10                     | 112DRFT         | yes                           | 76M1503       |
| 139                | .098           | 2.7             | 8.41        | 12         | 3076  | 1831                           | 12  | 983   | 95.1                          | MBMG                 | 187                    |                 | yes                           | 76M1506       |
| 151                | 37.300         | .1              | 7.78        | 9          | 3261  | 2293                           | 854                                       | 297   | 6.9                           | MBMG                 | 28                     |                 | yes                           | 76M1499       |
| 153                | 10.620         | .4              | 7.92        | 9          | 3114  | 2270                           | 611                                       | 247   | 9.2                           | MBMG                 | 35                     |                 | yes                           | 76M1498       |
| 159                | .038           | 2.3             | 8.28        | 12         | 4066  | 2380                           | 21  | 957   | 90.2                          | MBMG                 | 300                    | 211JDRV         | yes                           | 76M1507       |
| 184                |                |                 |             |            |   | 411                            |   | 254   |                               | Unknown              |                        | 211FRNR         | no                            | 33M0000       |
| 185                |                |                 | 7.60        |            |   | 1400                           |   | 381   |                               | Unknown              |                        | 337MSNC         | no                            | 56M0016       |
| 186                |                |                 | 7.20        |            |   | 2420                           |   | 303   |                               | Unknown              |                        | 331CRLS         | no                            | 68M0000       |
| 190                | 1.355          | .5              | 7.60        | 9.4        | 1900  | 1363                           | 853                                       | 362   | 3.3                           | USGS                 | 30                     | 110ALVM         | no                            | 47M0056       |
| 191                |                |                 | 7.70        | 14.4       | 1780  | 487                            |   | 313   | 4.5                           | USGS                 | 28                     | 110ALVM         | no                            | 63M0059       |
| 192                |                |                 | 8.50        |            |   | 171                            |   | 665   |                               | Unknown              |                        | 211FRNR         | no                            | 57M0003       |
| 193                |                |                 | 8.30        |            |   | 34                             |   | 1870  |                               | Unknown              |                        | 217KOTN         | no                            | 69M0005       |

## GLASGOW 1° x 2° Sheet

## Trace Elements Analysis Sheet

| Map<br>ref.<br>no. | Location<br>T R Sec Trect | Alu.<br>minum<br>mg/l | Anti-<br>mony<br>mg/l | Ar.<br>mg/l | Beryl-<br>ium<br>mg/l | Baron<br>mg/l | Gad-<br>mium<br>mg/l | Orto-<br>mium<br>mg/l | Copper<br>mg/l | Lead<br>mg/l | Lith-<br>ium<br>mg/l | Mer-<br>cury<br>mg/l | Nickel<br>mg/l | Phosphate<br>(Total)<br>mg/l | Selenium<br>mg/l | Silver<br>mg/l | Stron-<br>tium<br>mg/l | Tin<br>mg/l | Zinc<br>mg/l | Lab<br>number |
|--------------------|---------------------------|-----------------------|-----------------------|-------------|-----------------------|---------------|----------------------|-----------------------|----------------|--------------|----------------------|----------------------|----------------|------------------------------|------------------|----------------|------------------------|-------------|--------------|---------------|
| 21                 | 35N 30E 21                | <.05                  | <.2                   | <.2.0       |                       | 97            | <.01                 | <.01                  | <.05           | .27          | <.3                  | .01                  | .013           |                              | <.2.0            |                | 1.95                   | .40         | .02          | 76M1508       |
| 26                 | 35N 31E 28                | <.05                  | <.2                   | 4.3         |                       | 80            | <.01                 | <.01                  | <.05           | .08          | <.3                  | <.01                 | .254           |                              | <.2.0            |                | 12.10                  | .29         | .12          | 76M1509       |
| 29                 | 32N 32E 35 CDB            |                       |                       |             |                       |               |                      |                       |                |              |                      |                      |                |                              |                  |                |                        |             |              | 76M1559       |
| 32                 | 34N 31E 09 DB             | <.05                  | <.2                   | <.2.0       |                       | 1.7           | <.01                 | <.01                  | <.05           | .22          | <.3                  | .01                  | .026           |                              | <.2.0            |                | 1.19                   | .23         | <.01         | 76M1510       |
| 34                 | 32N 34E 15 ACD            | .05                   | .44                   | <.2.0       |                       | .75           | <.01                 | <.01                  | .01            | .05          | .20                  | <.3                  | .02            | .062                         | 41.8             |                | 2.80                   | .64         | .01          | 76M1514       |
| 36                 | 32N 34E 07 DCC            | .06                   | .44                   | <.2.0       |                       | 1.8           | <.01                 | <.01                  | .02            | .06          | .23                  | <.3                  | .04            | .049                         | <.2.0            |                | 2.74                   | .81         | .92          | 76M1512       |
| 40                 | 32N 32E 18 BA             | .06                   | <.2                   | <.2.0       |                       | 1.45          | <.01                 | <.01                  | .01            | .05          | .06                  | <.3                  | .01            | .765                         | <.2.0            |                | .42                    | .18         | .25          | 76M1515       |
| 45                 | 32N 32E 05 BG             | <.05                  | <.2                   | <.2.0       |                       | 3.2           | <.01                 | <.01                  | .01            | .05          | .15                  | <.3                  | <.01           | .095                         | 6                |                | .51                    | .07         | .05          | 76M1516       |
| 49                 | 31N 32E 05 BG             | .06                   | <.2                   | <.2.0       |                       | .85           | <.01                 | <.01                  | .01            | .05          | .10                  | <.3                  | .02            | .104                         | <.2.0            |                | .87                    | .19         | .01          | 76M1516       |
| 56                 | 32N 34E 29 DCC            | .06                   | <.2                   | <.2.0       |                       | .68           | <.01                 | <.01                  | .05            | .12          | <.3                  | .03                  | .023           |                              | 1.8              |                | 1.18                   | .30         | 1.44         | 76M1519       |
| 80                 | 32N 34E 23 BAA            | <.05                  | <.2                   | <.2.0       |                       | .62           | <.01                 | <.01                  | .01            | .05          | .14                  | <.3                  | <.01           | .023                         | 115              |                | .95                    | .24         | .05          | 76M1511       |
| 87                 | 31N 30E 24 BACA           | .06                   | <.2                   | 2.6         |                       | 1.1           | <.01                 | <.01                  | .01            | .05          | .14                  | <.3                  | <.01           | .033                         | <.2.0            |                | 1.14                   | .22         |              | 76M1518       |
| 70                 | 30N 30E 06 ABCC           | .07                   | .40                   | <.2.0       |                       | 1.1           | <.01                 | <.01                  | .02            | .10          | .34                  | <.3                  | .04            | .062                         | <.2.0            |                | 13.70                  | .56         | .01          | 76M1517       |
| 117                | 36N 39E 25 AA             | .06                   | <.2                   | <.2.0       |                       | .12           | <.01                 | <.01                  | .15            | <.05         | .03                  | <.3                  | <.01           | .020                         | 37               |                | .58                    | .27         | .14          | 76M1500       |
| 120                | 36N 38E 26                | .10                   | <.2                   | <.2.0       |                       | .20           | <.01                 | <.01                  | .02            | .09          | .58                  | <.3                  | .03            | .016                         | <.2.0            |                | 2.80                   | .71         | .18          | 76M1501       |
| 130                | 35N 35E 32 CDD            | .05                   | <.2                   | <.2.0       |                       | 2.2           | <.01                 | <.01                  | .01            | .05          | .27                  | <.3                  | .01            | .023                         | <.2.0            |                | 1.14                   | .10         | .13          | 76M1502       |
| 135                | 35N 35E 34 CDD            | .05                   | <.2                   | <.2.0       |                       | .20           | <.01                 | <.01                  | .01            | .05          | .09                  | <.3                  | .01            | .016                         | <.2.0            |                | .36                    | .44         | 4.10         | 76M1503       |
| 139                | 29N 38E 14 CAAB           | <.06                  | <.2                   | <.2.0       |                       | .62           | <.01                 | <.01                  | .01            | .05          | .14                  | <.3                  | <.01           | .068                         | <.2.0            |                | .20                    | .06         | .08          | 76M1506       |
| 151                | 28N 42E 05                | .14                   | <.2                   | <.2.0       |                       | .31           | <.01                 | <.01                  | .13            | <.05         | .21                  | <.3                  | .01            | .016                         | 96               |                | 1.31                   | .44         | .26          | 76M1498       |
| 163                | 28N 42E 20                | .06                   | <.2                   | <.2.0       |                       | .48           | <.01                 | <.01                  | .02            | .05          | .28                  | <.3                  | .01            | .023                         | 62               |                | 1.69                   | .36         | .46          | 76M1498       |
| 169                | 28N 39E 06                | .06                   | <.2                   | <.2.0       |                       | 4.7           | <.01                 | <.01                  | .01            | .05          | .18                  | <.3                  | <.01           | .062                         | <.2.0            |                | .36                    | .06         | .06          | 76M1507       |

# LOCATION BASE MAP

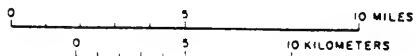
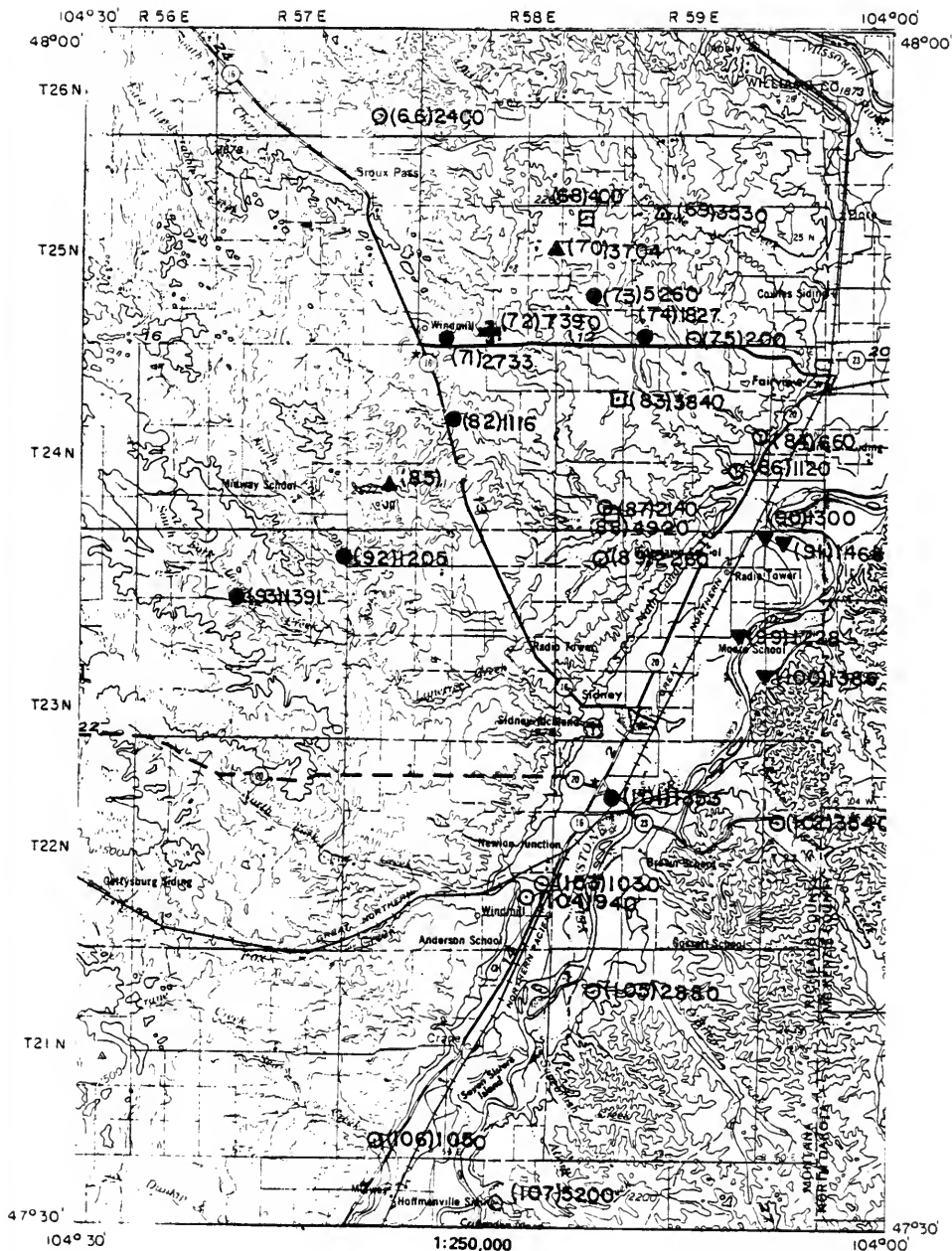


GLENDIVE 1° x 2° SHEET



# SPECIFIC CONDUCTANCE SURVEY

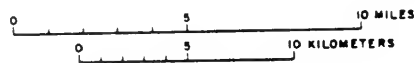
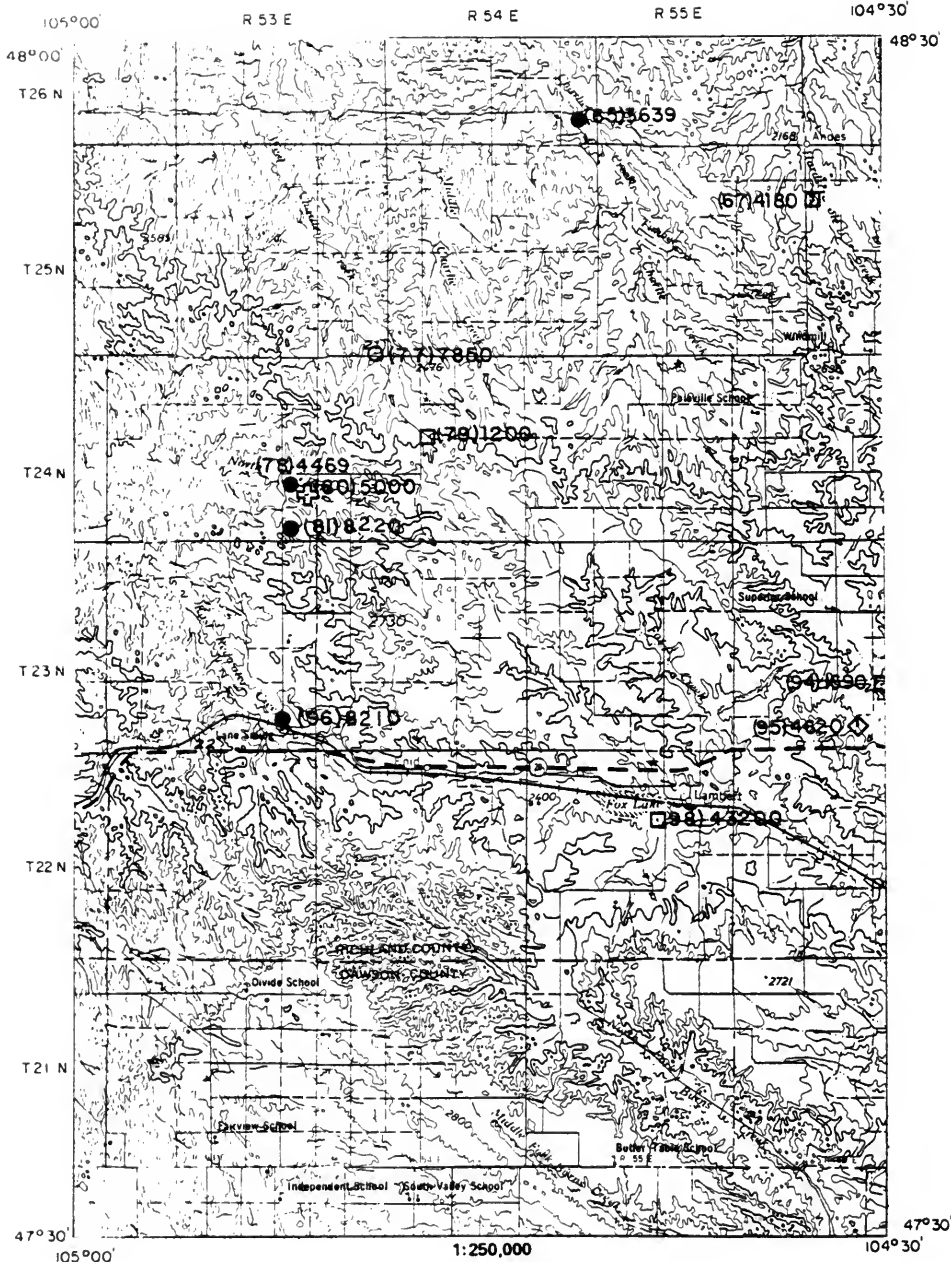
GLENDIVE 1



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

GLENDIVE 2

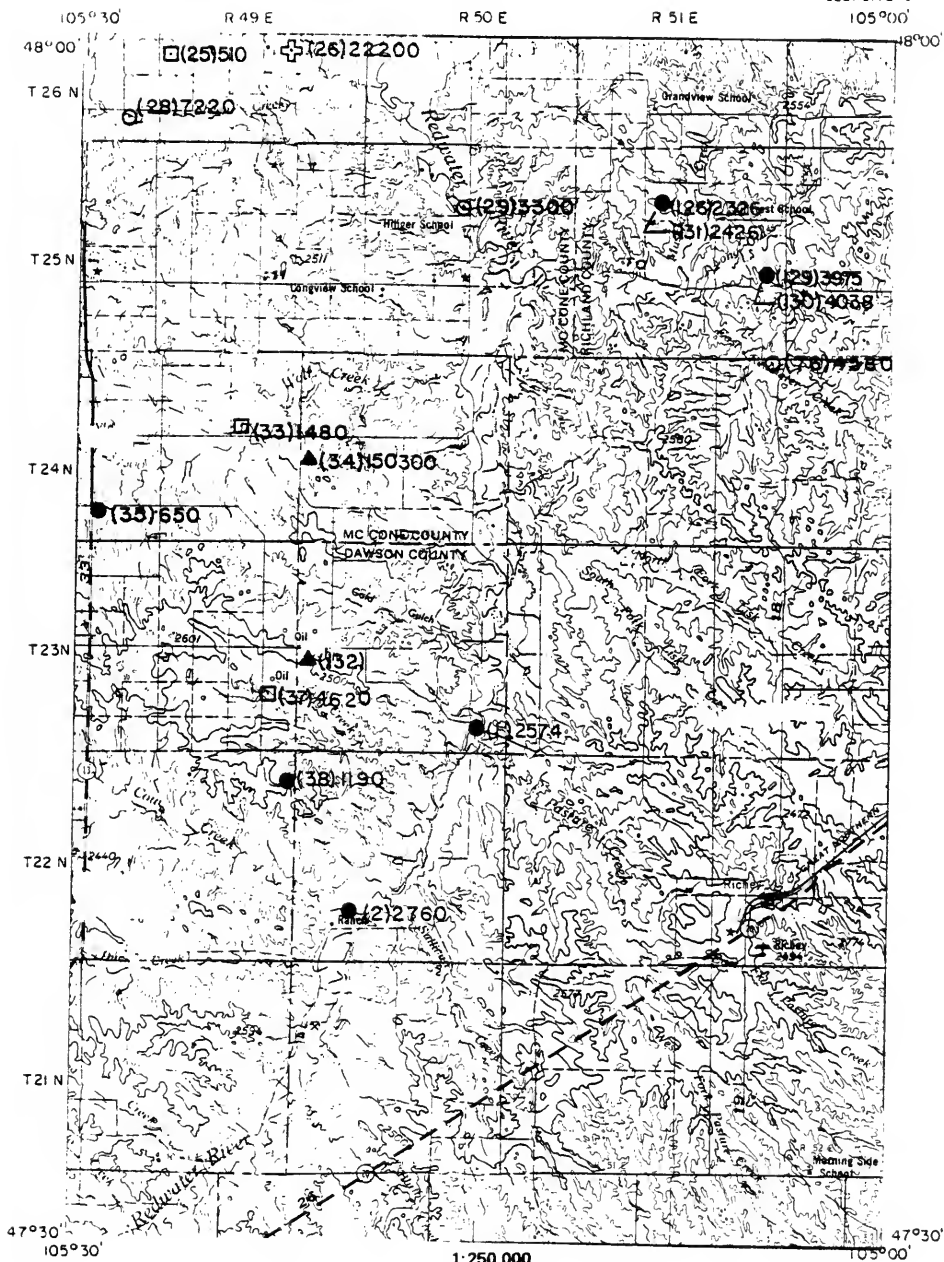


CONTOUR INTERVAL 100 FT

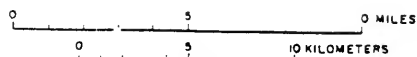


# SPECIFIC CONDUCTANCE SURVEY

GLENDIVE 3



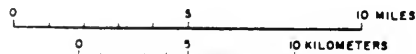
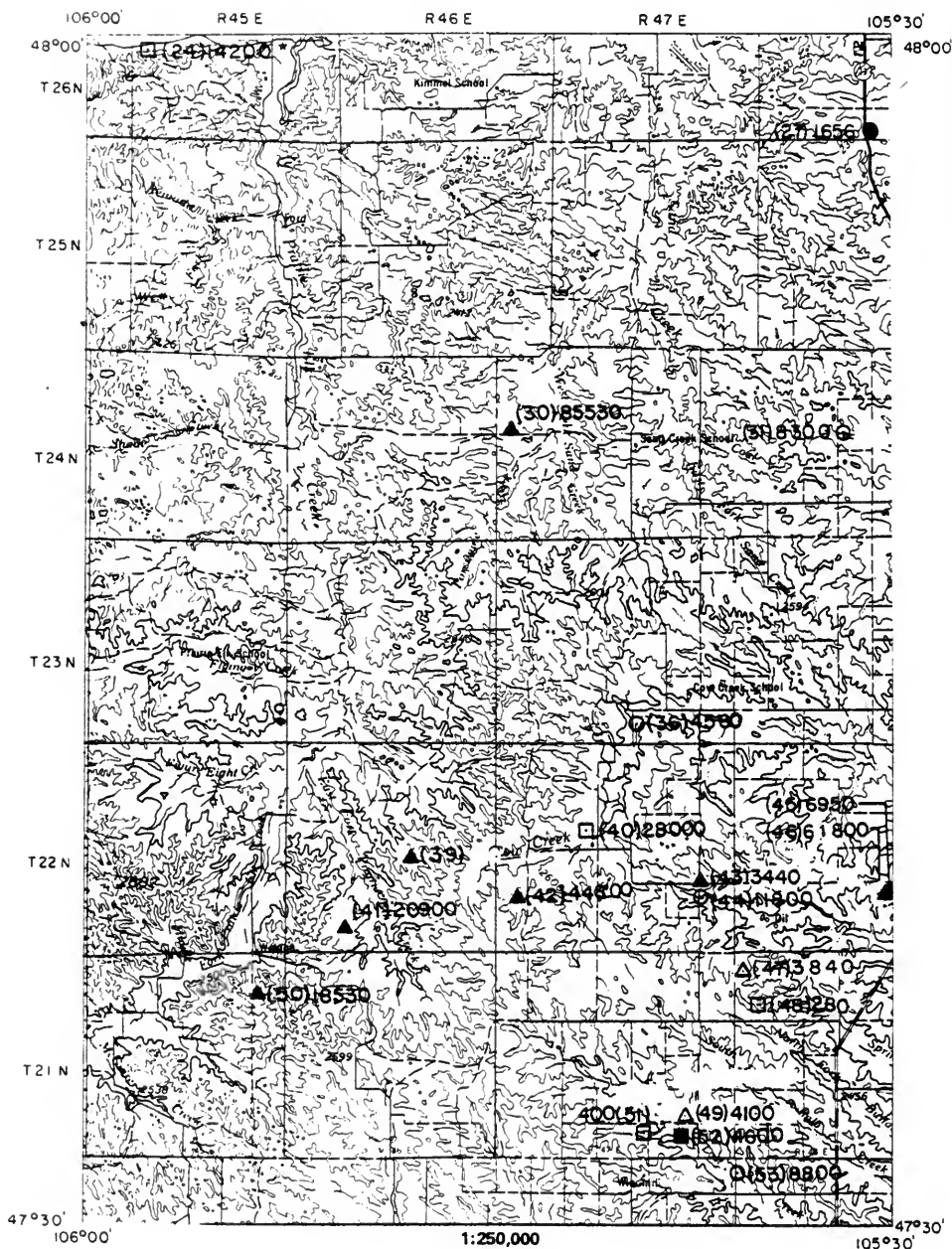
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CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

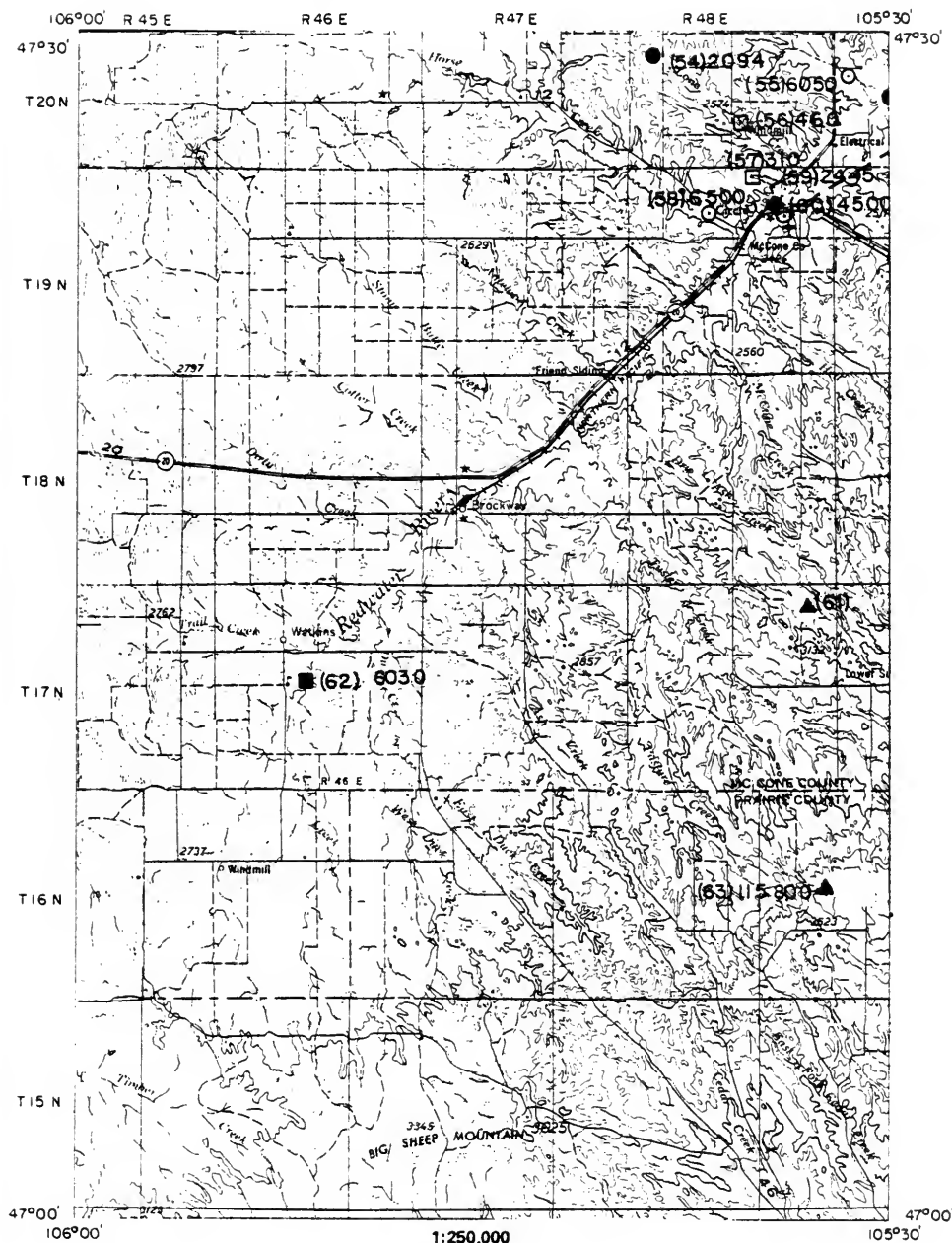
GLENDIVE 4



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

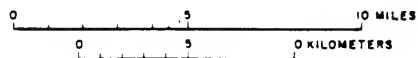
GLENDOVE 3



GLENDIVE 6

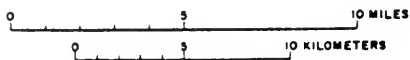


GLENOIVE 7



**CONTOUR INTERVAL 100 FT**

GLENDIVE 8



**CONTOUR INTERVAL 100 FT**

# GLENDIVE 1" x 2" Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or Yield<br>E-estimated<br>M-measured | Site description                                       | Specific<br>conductivity<br>at 25°C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Surf<br>level<br>(ft.) | Wall<br>depth<br>(ft.) | Aquifer<br>code | Owner's name           |
|--------------------|-----------------|----------|---------------------------|---------------------------------|-----------|--|--|-------------------------------------|---------------------|-----------------|-------------------|------------------------|------------------------|-----------------|------------------------|
| 1                  | EP424           | Richland | 23N 50E 36B               | 07 27 78                        | River     |  | Redwater River   | 2574                                | 22                  | yes             |                   |                        |                        |                 |                        |
| 2                  | WQB23           | Dawson   | 23N 50E 28                | 07 27 78                        | River     |  | Redwater River   | 2760                                | 21                  | yes             |                   |                        |                        |                 |                        |
| 3                  | WQB4            | Dawson   | 20N 65E 30 A A            | 09 06 76                        | Spring    | no flow                                    |  | 900                                 |                     | no              |                   |                        |                        |                 |                        |
| 4                  | WQB3            | Dawson   | 18N 64E 12 B              | 09 08 76                        | Reservoir |  | Some effluents along its sides, dryland farming area   | 2780                                |                     | no              |                   |                        |                        |                 |                        |
| 5                  | WQB8            | Dawson   | 18N 62E 03 BC             | 09 06 76                        | Creek     |  | Some effluents along its sides, dryland farming area   | 9300                                |                     | no              |                   |                        |                        |                 |                        |
| 8                  | WQB7            | Dawson   | 18N 52E 12 CB             | 09 06 75                        | Seep      |  | Vertical culvert in the middle of the seep             | 2540                                |                     | no              |                   |                        |                        |                 |                        |
| 7                  | WQB5            | Dawson   | 18N 53E 32 CD             | 09 06 75                        | Creek     | no flow                                    | Lower Seven Mile Deer Creek, all effluents along sides | 5540                                | 21                  | yes             |                   |                        |                        |                 |                        |
| 8                  | WQB6            | Dawson   | 18N 52E 12                | 09 06 75                        | Creek     | no flow                                    | Lower Seven Mile Deer Creek, all effluents along sides | 3250                                |                     | no              |                   |                        |                        |                 |                        |
| 9                  | WQB10           | Dawson   | 18N 52E 12                | 09 06 75                        | Reservoir |  | Above Deer Creek, all effluents present                | 1260                                |                     | no              |                   |                        |                        |                 |                        |
| 10                 | WQB11           | Dawson   | 18N 52E 16                | 09 06 75                        | Creek     | 0.6 cfs (E)                                | Deer Creek   | 2280                                |                     | no              |                   |                        |                        |                 |                        |
| 11                 | WQB9            | Dawson   | 18N 52E 18                | 09 06 75                        | Creek     | no flow                                    | South Fork Deer Creek                                  | 2900                                |                     | no              | 3010              | 711                    |                        | 231MNC          | Snyder Oil and Gas Co. |
| 12                 | WQB0013         | Dawson   | 18N 51E 16 CC             | 03 20 69                        | Well      |  | 9 miles NW of Lundy                                    | 156000                              |                     | yes             | 3010              |                        |                        | 211MDDY         |                        |
| 13                 | WQB0004         | Dawson   | 18N 51E 16 CC             | 04 10 69                        | Well      |  | Thirteen Mile Creek, rangeland                         | 12930                               |                     | yes             |                   |                        |                        |                 |                        |
| 14                 | WQB2            | Dawson   | 18N 56E 07                | 09 06 75                        | Creek     | 2 cfs (E)                                  | Thirteen Mile Creek                                    | 2190                                |                     | no              |                   |                        |                        |                 |                        |
| 15                 | WQB1            | Dawson   | 18N 56E 27                | 09 06 75                        | Creek     | 2 cfs (E)                                  |  |                                     |                     | no              |                   |                        |                        |                 |                        |
| 16                 | WQB20           | Dawson   | 17N 52E 24                | 09 07 75                        | Reservoir |  | Clear Creek Reservoir at Lundy                         | 1970                                |                     | no              |                   |                        |                        |                 |                        |
| 17                 | WQB12           | Dawson   | 17N 52E 29 A              | 09 06 76                        | Creek     | 0.6 cfs (E)                                | Upper Seven Mile Creek                                 | 3580                                |                     | no              |                   |                        |                        |                 |                        |
| 18                 | WQB15           | Dawson   | 16N 51E 18                | 09 07 76                        | Creek     |  | South Fork Clear Creek                                 | 2670                                |                     | no              |                   |                        |                        |                 |                        |
| 19                 | WQB22           | Dawson   | 16N 55E 33 CD             | 03 16 78                        | Creek     | 1.6 cfs (E)                                | Seven Mile Creek near Glendive                         | 1732                                | yes                 |                 |                   |                        |                        |                 |                        |
| 20                 | WQB13           | Dawson   | 16N 56E 30 A              | 09 07 76                        | Creek     | 2 cfs (E)                                  | Glendive Creek   | 3080                                |                     | no              |                   |                        |                        |                 |                        |
| 21                 | WQB21           | Dawson   | 16N 58E 20 CC             | 03 16 76                        | Creek     | 25 cfs (E)                                 | Glendive Creek near Glendive                           | 693                                 |                     | yes             |                   |                        |                        | 320AMSD         |                        |
| 22                 | WQB0008         | Dawson   | 16N 58E 26 AB             | 07 19 90                        | Well      |  | 5 miles SE of Glendive                                 | 24710                               |                     | yes             |                   |                        |                        |                 |                        |
| 23                 | WQB14           | Dawson   | 16N 58E 18                | 09 07 76                        | Creek     | 6 cfs (E)                                  | Seep Creek   | 680                                 |                     | no              |                   |                        |                        |                 |                        |
| 24                 | WQB35           | McCona   | 26N 46E 18                | 09 01                           | Well      |  | Seep Creek, located below Missouri bluffs              | 14200                               |                     | no              |                   |                        |                        |                 |                        |
| 25                 | WQB31           | McCona   | 26N 46E 18                | 09 31 75                        | Reservoir |  | Small reservoir 100 yards above a saline seep          | 610                                 |                     | no              |                   |                        |                        |                 |                        |
| 26                 | WQB30           | McCona   | 26N 46E 22 A              | 09 31 76                        | Seep      |  | Two acres in size                                      | 22200                               |                     | no              |                   |                        |                        |                 |                        |
| 27                 | WQB42           | McCona   | 26N 46E 34 CC             | 03 16 78                        | Creek     | 0.1 cfs (E)                                | Seep Creek near Wolf Point                             | 1656                                | .2                  | yes             |                   |                        |                        |                 |                        |
| 28                 | WQB32           | McCona   | 26N 46E 38 B A            | 09 31 75                        | Creek     | no flow                                    | Standing water in Seep Creek                           | 7220                                |                     | no              |                   |                        |                        |                 |                        |
| 29                 | WQB18           | McCona   | 25N 50E 09 D              | 09 30 76                        | Creek     | 2 cfs (E)                                  | Redwater River   | 3300                                |                     | no              | 2290              |                        |                        | 331CR15         |                        |
| 30                 | WQB0028         | McCona   | 24N 47E 18 CB             | 11 20 66                        | Well      |  | 25 miles N of Circle                                   | 85530                               |                     | yes             |                   |                        |                        |                 |                        |

**GLENDIVE 1" x 2" Sheet (Con't.)**

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>sheet<br>no. | Field<br>number | County | Location<br>T R Sec Tract | Collection<br>Date<br>Mo Day Yr | Flow or yield<br>E-estimated<br>M-measured          | Site description | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|---------------------|-----------------|--------|---------------------------|---------------------------------|---|------------------|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
|                     | 24N 48E 14      | McCone | 08 30 7S Creek            | no flow                         | Wolf Creek below reservoir, much alluvi             | 8300             |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 24N 48E 14      | McCone | 08 30 7S Reservoir        |                                 | Reservoir on Wolf Creek, alluvi along sides         | 1480             |                                      | no                   | 2400            |                   |                                   |                        | 331KBBY         |              |
|                     | 24N 48E 14      | McCone | 08 32 7S Well             |                                 | 18 miles NW of Richley                              | 1500             |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 24N 48E 31 BB   | McCone | 01 18 7S Creek            | 0.2 cfs (1E)                    | Wolf Creek near Vids on highway 13                  | 650              | 2                                    | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 23N 47E 35      | McCone | 08 30 7S Creek            |                                 | Cow Creek   | 4550             |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 23N 48E 25      | McCone | 08 30 7S Reservoir        |                                 | On Hwy Creek, dryland farming area                  | 4670             |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 23N 48E 01 DA   | McCone | 03 16 7S Creek            | 2.7 cfs (1E)                    | Cow Creek at highway 13 bridge near Circle          | 1180             |                                      | yes                  | 2600            |                   |                                   |                        | 331KBBY         |              |
|                     | 22N 48E 22 AA   | McCone | 02 22 6S Well             |                                 | 19 miles NW of Circle                               |                  |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 22N 47E 16 AC   | McCone | 08 30 7S Pit              |                                 | Emergency discharge pit, 2 pits both full           | 28000            |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 22N 48E 32 AS   | McCone | 09 10 5S Well             |                                 | 18 miles NW of Circle                               | 29000            |                                      | yes                  | 2580            |                   |                                   |                        | 331GRLS         |              |
|                     | 22N 47E 30 DD   | McCone | 02 30 5S Well             |                                 | 18 miles N of Circle                                | 44000            |                                      | yes                  | 2680            |                   |                                   |                        | 331KBBY         |              |
|                     | 22N 48E 30 BB   | McCone | 08 30 7S Well             |                                 | Stuck use, ramped                                   | 3440             |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 22N 48E 30 B    | McCone | 08 30 7S Creek            | no flow                         | Duck Creek  | 11800            |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 22N 48E 25 BD   | McCone | 02 01 52 Well             |                                 | 18 miles N of Circle                                | 8950             |                                      | yes                  | 2550            |                   |                                   |                        | 217DKOT         |              |
|                     | 22N 48E 25 BD   | McCone | 02 10 52 Well             |                                 | 3 miles NE of Circle                                | 61800            |                                      | yes                  | 2550            |                   |                                   |                        | 320AMSD         |              |
|                     | 21N 48E 05 BC   | McCone | 08 30 7S Well             |                                 | Stuck use   | 3840             |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 21N 48E 08 DC   | McCone | 08 29 7S Reservoir        |                                 | Small reservoir in dryland farming area             | 280              |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 21N 48E 08 DC   | McCone | 08 29 7S Well             |                                 | Small reservoir in poor condition                   | 470              |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 21N 45E 12 BB   | McCone | 09 10 5S Well             |                                 | 50 miles E of Winfield                              | 18530            |                                      | yes                  | 2600            |                   |                                   |                        | 331KBBY         |              |
|                     | 21N 47E 35 BD   | McCone | 08 29 7S Reservoir        |                                 | On Lost Creek                                       | 400              |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 21N 47E 36      | McCone | 08 29 7S Reservoir        |                                 | Lost Creek Reservoir                                | 4600             |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 20N 48E 03 CC   | McCone | 08 29 7S Creek            |                                 | Lost Creek, alluvi along bank, dryland farming area | 8800             |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 20N 48E 18 OA   | McCone | 03 16 7S Creek            | 2 cfs (1E)                      | Lost Creek at highway 13 bridge near Circle         | 2094             |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 20N 48E 18      | McCone | 08 28 7S Creek            | no flow                         | Lost Creek, much alluvi                             | 9050             |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 20N 48E 27      | McCone | 08 29 7S Reservoir        |                                 | Two acres in size                                   | 480              |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 19N 48E 08 AC   | McCone | 08 29 7S Reservoir        |                                 | Small reservoir                                     | 310              |                                      | no                   |                 |                   |                                   |                        |                 |              |
|                     | 19N 48E 09 B    | McCone | 08 29 7S Creek            | no flow                         | Hot Creek, dryland farming area                     | 6500             |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 19N 48E 11 BA   | McCone | 03 16 7S River            | 2.2 cfs (1E)                    | Redwater River near Circle                          | 2445             |                                      | yes                  |                 |                   |                                   |                        |                 |              |
|                     | 19N 48E 11 B    | McCone | 08 29 7S River            | 1 cfs (1E)                      | Redwater River at Circle                            | 4500             |                                      | yes                  |                 |                   |                                   |                        |                 |              |



# GLENDIVE 1" x 2" Sheet (Cont.) Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec Twp | Collection<br>Mo Day Yr Source | Flow at Yield<br>Estimated<br>M-measured | Site description                                    | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Well<br>depth<br>ft. | Acquirer<br>code | Owner's name |
|--------------------|-----------------|----------|-------------------------|--------------------------------|--|---|--------------------------------------|----------------------|-----------------|-----------------|----------------------|------------------|--------------|
| 61                 | 60M003          | McCone   | 17N 48E 01 CC           | 11 02 69 Well                  |  | 12 miles S of Circle                                |                                      |                      |                 | 2880            |                      | 217MODY          |              |
| 62                 | WQB341          | McCone   | 17N 48E 16 DD           | 09 02 75 Reservoir             |  | On Redwater River, large seep area                  | 6030                                 |                      | Yes             |                 |                      |                  |              |
| 63                 | 69M002          | Prairie  | 16N 48E 17 DD           | 11 28 69 Well                  |  | 18 miles S of Circle                                | 118000                               |                      | Yes             | 3370            |                      | 217MODY          |              |
| 64                 | 63M004          | Prairie  | 16N 50E 23 CC           | 03 10 52 Well                  |  | 32 miles W of Glendive                              | 6860                                 |                      | Yes             | 3070            |                      | 331ORLLS         |              |
| 65                 | WQB348          | Richland | 26N 54E 36 BAA          | 06 15 78 Creek                 | 2 cfs (E)                                | Middle Charlie Creek                                | 3638                                 | 23                   | Yes             |                 |                      |                  |              |
| 66                 | WQB19           | Richland | 26N 52E 36              | 10 07 76 Creek                 | 0.5 cfs (E)                              | Five acres in site                                  | 2400                                 |                      | no              |                 |                      |                  |              |
| 67                 | WQB15           | Richland | 26N 52E 36              | 10 07 76 Reservoir             |  | 200 yards from road                                 | 4180                                 |                      | no              |                 |                      |                  |              |
| 68                 | WQB16           | Richland | 26N 58E 14              | 10 07 75 Reservoir             |  | Stock use, surrounded by seep                       | 3520                                 |                      | no              |                 |                      |                  |              |
| 69                 | WQB16           | Richland | 26N 58E 18 AA           | 10 07 76 Well                  |  | Unused  | 3704                                 |                      | Yes             |                 |                      |                  |              |
| 70                 | WQB55           | Richland | 26N 58E 22 AAC          | 12 18 76 Well                  |  |   |                                      |                      |                 |                 |                      |                  |              |
| 71                 | WQB40           | Richland | 26N 58E 31 DDD          | 06 15 76 Creek                 | 5 cfs (E)                                | North Fork First Hay Creek, algal sample taken      | 2733                                 | 18                   | Yes             |                 |                      |                  |              |
| 72                 | WQB29           | Richland | 25N 58E 22 DDD          | 06 15 76 Seep                  | 1 gpm (E)                                | Two miles E of Highway 18, algal sample taken       | 7360                                 | 18                   | Yes             |                 |                      |                  |              |
| 73                 | WQB14           | Richland | 26N 58E 26 DD           | 10 07 75 Creek                 | no flow                                  | Second Hay Creek                                    | 8360                                 |                      | Yes             |                 |                      |                  |              |
| 74                 | WQB27           | Richland | 26N 58E 31 CDD          | 06 15 76 Creek                 | 2 cfs (E)                                | Second Hay Creek                                    | 1850                                 | 19                   | Yes             |                 |                      |                  |              |
| 75                 | WQB36           | Richland | 25N 58E 32 DDD          | 06 15 76 Creek                 | 1 cfs (E)                                | Third Hay Creek                                     | 250                                  |                      | no              |                 |                      |                  |              |
| 76                 | WQB21           | Richland | 24N 52E 05              | 10 09 75 River                 | 1 cfs (E)                                | East Fork Redwater River                            | 4580                                 |                      | no              |                 |                      |                  |              |
| 77                 | WQB29           | Richland | 24N 52E 38              | 10 09 75 Creek                 | no flow                                  | West Fork Charlie Creek                             | 7860                                 |                      | no              |                 |                      |                  |              |
| 78                 | WQB48           | Richland | 24N 52E 25 B8B          | 06 15 78 Creek                 | 0.5 cfs (E)                              | North Fork East Redwater Creek                      | 4468                                 | 23                   | Yes             |                 |                      |                  |              |
| 79                 | WQB47           | Richland | 24N 54E 15 CCC          | 06 15 76 Creek                 | no flow                                  | West Fork Charlie Creek, dry except for small pools | 1200                                 |                      | no              |                 |                      |                  |              |
| 80                 | WQB45           | Richland | 24N 53E 25              | 06 15 78 Seep                  | no flow                                  |   | 5000                                 |                      | no              |                 |                      |                  |              |
| 81                 | WQB44           | Richland | 24N 53E 36 CC           | 06 15 78 Creek                 | 1 gpm (E)                                | Jaffrey Creek, algal sample taken                   | 8220                                 | 19                   | Yes             |                 |                      |                  |              |
| 82                 | WQB38           | Richland | 24N 53E 36 DDB          | 7 cfs (E)                      | First Hay Creek, algal sample taken      |   | 1118                                 | 10                   | Yes             |                 |                      |                  |              |
| 83                 | WQB20           | Richland | 24N 58E 17 AAC          | 10 07 75 Reservoir             |  | Reservoir   | 3840                                 |                      | no              |                 |                      |                  |              |
| 84                 | WQB20           | Richland | 24N 58E 24              | 10 06 75 Creek                 | 0.5 cfs (E)                              | Third Hay Creek                                     | 660                                  |                      | Yes             | 2380            |                      | 331MODN          |              |
| 85                 | 63M001          | Richland | 24N 58E 28 BAA          | 06 63 Well                     |  | 11 miles SW of Fairview                             |                                      |                      |                 |                 |                      |                  |              |
| 86                 | WQB21           | Richland | 24N 58E 25              | 10 06 76 Creek                 |  | Second Hay Creek                                    | 1120                                 |                      | no              |                 |                      |                  |              |
| 87                 | WQB11           | Richland | 24N 58E 32 A            | 10 07 75 Creek                 | 2 cfs (E)                                | First Hay Creek, dryland farming area               | 2140                                 |                      | no              |                 |                      |                  |              |
| 88                 | WQB13           | Richland | 24N 58E 32 A            | 10 07 75 Reservoir             |  | On Second Hay Creek, alkali below dam               | 4820                                 |                      | no              |                 |                      |                  |              |
| 89                 | WQB10           | Richland | 23N 58E 05 C            | 10 07 76 Creek                 | 0.5 cfs (E)                              | Dryland farming area                                | 2260                                 |                      | no              |                 |                      |                  |              |
| 90                 | WQB53           | Richland | 23N 60E 06 B            | 10 06 76 Canal                 | 2 cfs (E)                                | Irrigation return canal                             | 1300                                 |                      | Yes             |                 |                      |                  |              |

## GLENDIVE 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Fed<br>number | County   | Location<br>T R Sect | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E-measured<br>M-measured | Site description                                  | Specific<br>conductivity<br>at 25 °C | Faird<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>depth<br>(ft.) | Well<br>code | Owner's name |
|-------------|---------------|----------|----------------------|---------------------------------|---|---|--------------------------------------|----------------------|-----------------|-------------------|--|--------------|--------------|
| 97          | not on map    |          |                      |                                 |   |   |                                      |                      |                 |                   |  |              |              |
| 98          | WOB81         | Richland | 23N 60E 06 A         | 10 08 75 Canal                  | 2 cfs (E)                                 | Irrigation return canal                           | 1468                                 | 19                   | yes             |                   |  |              | Humol        |
| 99          | WOB82         | Richland | 23N 57E 01 DDD       | 08 15 78 Creek                  | 8 cfs (E)                                 | North Fork Lone Tree Creek                        | 1205                                 | 19                   | yes             |                   |  |              |              |
| 100         | WOB83         | Richland | 23N 57E 09 DDD       | 08 15 78 Creek                  | 6 cfs (E)                                 | South Fork Lone Tree Creek, aigal sample taken    | 1391                                 | 19                   | yes             |                   |  |              |              |
| 101         | WOB84         | Richland | 23N 56E 28 BC        | 08 08 75 Reservoir              |   | Surrounded by dryland farming                     | 1690                                 |                      | no              |                   |  |              |              |
| 102         | WOB85         | Richland | 23N 56E 34 AD        | 08 08 75 Spring                 |   | Surrounded by dryland farming                     | 4820                                 |                      | no              |                   |  |              |              |
| 103         | WOB86         | Richland | 23N 53E 36 BCC       | 08 15 76 Creek                  | 11 gpm (E)                                | East Redwater Creek, aigal sample taken           | 8210                                 |                      | yes             |                   |  |              |              |
| 104         | WOB87         | Richland | 22N 58E 10 C         | 08 08 75 Lake                   | 3 cfs (E)                                 | Water level management project, large alkali flat | 43200                                |                      | no              |                   |  |              |              |
| 105         | WOB88         | Richland | 22N 58E 24 B         | 08 08 75 Creek                  | 2 cfs (E)                                 | Partial farm irrigation return                    | 1350                                 |                      | yes             |                   |  |              |              |
| 106         | WOB89         | Richland | 23N 58E 25 A         | 10 08 75 Canal                  | 2 cfs (E)                                 | Irrigation return                                 | 1386                                 |                      | yes             |                   |  |              |              |
| 107         | WOB90         | Richland | 22N 58E 08 DBB       | 10 08 75 Canal                  | 3 cfs (E)                                 |   | 1363                                 |                      | yes             |                   |  |              |              |
| 108         | WOB91         | Richland | 22N 60E 18           | 10 08 75 Creek                  | < 0.1 cfs (E)                             | Bonnie Peer Creek, some dryland farming           | 3540                                 |                      | no              |                   |  |              |              |
| 109         | WOB92         | Richland | 22N 68E 25 ADC       | 08 15 76 Creek                  | 20 cfs (E)                                | Fox Creek at bridge                               | 1030                                 |                      | no              |                   |  |              |              |
| 110         | WOB93         | Richland | 22N 58E 25           | 08 08 75 Creek                  | 5 cfs (E)                                 | Fox Creek   | 940                                  |                      | no              |                   |  |              |              |
| 111         | WOB94         | Richland | 22N 59E 08           | 10 08 75 Creek                  | 160 gpm (E)                               | O'Brien Creek, regraded area                      | 2880                                 |                      | no              |                   |  |              |              |
| 112         | WOB95         | Richland | 21N 58E 32 CAA       | 08 15 76 Creek                  | 5 cfs (E)                                 | Scout Creek at bridge                             | 1050                                 |                      | no              |                   |  |              |              |
| 113         | WOB96         | Richland | 20N 58E 07           | 10 08 75 Creek                  | 25 cfs (E)                                | Scout Creek, regraded area                        | 5200                                 |                      | no              |                   |  |              |              |
| 114         | WOB97         | Richland | 20N 58E 28           | 08 08 75 Creek                  | 1 cfs (E)                                 | Dunkirk Creek                                     | 840                                  |                      | no              |                   |  |              |              |
| 115         | WOB98         | Richland | 20N 58E 29 ADD       | 08 15 78 Canal                  | 1 cfs (E)                                 | Main irrigation return canal                      | 255                                  | 18                   | yes             |                   |  |              |              |
| 116         | WOB99         | Richland | 20N 58E 32           | 08 08 75 Coulee                 | 1 cfs (E)                                 | Garden Coulee                                     | 820                                  |                      | no              |                   |  |              |              |
| 117         | WOB100        | Richland | 19N 58E 07           | 08 08 75 Creek                  | 1 cfs (E)                                 | Beet Slough Creek                                 | 1640                                 |                      | no              |                   |  |              |              |
| 118         | WOB101        | Richland | 19N 58E 07 AB        | 08 08 75 Spring                 | 1 cfs (E)                                 | On W side of highway 200, much silt               | 2080                                 |                      | no              |                   |  |              |              |
| 119         | WOB102        | Richland | 19N 57E 28 CCC       | 08 08 75 Creek                  | 3 cfs (E)                                 | Burns Creek                                       | 2146                                 |                      | yes             |                   |  |              |              |
| 120         | WOB103        | Richland | 19N 57E 28 CCC       | 08 15 76 Creek                  | 5 cfs (E)                                 | Burns Creek at Hwy Bridge                         | 1840                                 |                      | no              |                   |  |              |              |
| 121         | WOB104        | Wabau    | 19N 60E 28           | 08 03 75 Creek                  | no flow                                   | Smith Creek                                       | 2460                                 |                      | no              |                   |  |              |              |
| 122         | WOB105        | Wabau    | 19N 60E 17           | 08 03 75 Creek                  | no flow                                   | C.S. Creek, much silt, regraded area              | 7500                                 |                      | no              |                   |  |              |              |
| 123         | WOB106        | Wabau    | 17N 60E 07 D         | 08 03 75 Reservoir              |   | Salt line reservoir, regraded area                | 3980                                 |                      | no              |                   |  |              |              |
| 124         | WOB107        | Wabau    | 18N 68E 20 DB        | 08 03 75 Reservoir              |   | Salt line reservoir and coulee                    | 2080                                 |                      | no              |                   |  |              |              |
| 125         | WOB108        | Wabau    | 18N 68E 25 BD        | 08 03 75 Reservoir              |   | One to two acres in size                          | 1180                                 |                      | no              |                   |  |              |              |
| 126         | WOB109        | Wabau    | 18N 68E 28           | 08 03 75 Spring                 |   | Lined with alkali, dryland farming area           | 1700                                 |                      | no              |                   |  |              |              |

GLENDIVE 1" x 2" Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no | Field<br>number | County | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Flow or Yield<br>E = estimated<br>M = measured | Site description                       | Specific<br>conductivity<br>at 25 C | Field<br>temp<br>C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|------------------|-----------------|--------|---------------------------|---------------------------------|--------|--|--|-------------------------------------|--------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 121              | WOB12           | Wibaux | 15N 50E 25 CD             | 09 03 75                        | Spring | 25 gpm (E)                                     | Area surrounded by dryland farming     | 4820                                | yes                | yes             |                   |                                   |                        |                 |              |
| 122              | WOB13           | Wibaux | 15N 50E 17 8B             | 09 03 75                        | Creek  | 2 cfs (E)                                      | Beaver Creek N of Wibaux               | 2100                                | no                 | no              |                   |                                   |                        |                 |              |
| 123              | WOB13           | Wibaux | 15N 50E 14 8B             | 09 03 75                        | Creek  | 0.5 cfs (E)                                    | Little Beaver Creek                    | 3680                                | no                 | no              |                   |                                   |                        |                 |              |
| 124              | WOB14           | Wibaux | 15N 50E 14 DC             | 09 03 75                        | Well   |  | Domestic well at an old homestead      | 2400                                | no                 | no              |                   |                                   |                        |                 |              |
| 125              | WOB12           | Wibaux | 15N 50E 27 8C             | 09 03 75                        | Well   |  | Uses a hand pump, dryland farming area | 2000                                | no                 | no              |                   |                                   |                        |                 |              |
| 126              | EPA RW2         | McCone | 25N 51E 09                | 07 27 78                        | River  |  | Redwater River                         | 2226                                | 20.6               | yes             |                   |                                   |                        |                 |              |
| 127              | EPA RW5         | McCone | 20N 49E 20                | 07 27 78                        | River  |  | Redwater River                         | 3550                                | 20                 | yes             |                   |                                   |                        |                 |              |
| 128              | EPA RW1         | McCone | 25N 51E 20                | 07 27 78                        | River  |  | Redwater River                         | 3650                                | 22                 | yes             |                   |                                   |                        |                 |              |
| 129              | EPA EF1         | McCone | 25N 51E 24                | 07 27 78                        | River  |  | Redwater River                         | 3816                                | 22                 | yes             |                   |                                   |                        |                 |              |
| 130              | EPA EF1         | McCone | 25N 51E 24                | 07 28 78                        | River  |  | Redwater River                         | 4038                                | 24                 | yes             |                   |                                   |                        |                 |              |
| 131              | EPA RW2         | McCone | 25N 51E 09                | 07 28 78                        | River  |  | Redwater River                         | 2426                                | 20.5               | yes             |                   |                                   |                        |                 |              |
| 132              | 52M0005         | McCone | 23N 50E 19 8CO            | 05 16 52                        | Well   |  |  |                                     |                    | yes             |                   |                                   |                        | 337MSNC         |              |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|-----------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 1                  | 23N 51E 36                | 07 27 67                        | River     | 47.3            | 85                     | 486            | 8.1                   | <.01         |                        |                               |   |                                      | 34               | 16                            |
| 2                  | 22N 50E 29                | 07 27 76                        | River     | 37.3            | 77                     | 537            | 8.3                   | <.01         |                        |                               |   |                                      | 10               | 1096                          |
| 7                  | 19N 53E 32 CD             | 09 23 76                        | Creek     | 280             | 410                    | 280            | 45                    |              |                        |                               |   |                                      | 64               | 2250                          |
| 12                 | 18N 51E 15 CC             | 03 20 69                        | Well      | 4700            | 580                    | 46000          | 1800                  |              |                        |                               |   |                                      | 80000            | 2800                          |
| 13                 | 18N 51E 15 CC             | 04 10 68                        | Well      | 44              | 7                      | 3200           | 34                    |              |                        |                               |   | 1760                                 | 96               | 3500                          |
| 19                 | 16N 56E 33 CD             | 03 15 76                        | Creek     | 56              | 72                     | 250            | 5.5                   |              |                        |                               |   | 456                                  | 2                | 10.3                          |
| 21                 | 16N 58E 20 CC             | 03 15 76                        | Creek     | 21.2            | 10.7                   | 85             | 8.7                   |              |                        |                               |   | 161                                  | 4                | 146                           |
| 22                 | 15N 58E 25 A8             | 07 19 60                        | Well      | 2600            | 570                    | 120000*        |                       |              |                        |                               |   | 122                                  | 190000           | 2400                          |
| 27                 | 26N 48E 34 CC             | 03 16 76                        | Creek     | 64              | 56                     | 245            | 14.9                  |              |                        |                               |   | 223                                  | 7.1              | 715                           |
| 30                 | 24N 47E 18 CB             | 11 20 65                        | Well      | 1300            | 180                    | 22000*         |                       |              |                        |                               |   | 305                                  | 42               | 31000                         |
| 34                 | 24N 50E 19 CB             | 07 23 66                        | Well      | 1700            | 140                    | 46000          | 540                   |              |                        |                               |   | 146                                  | 73000            | 3100                          |
| 35                 | 24N 48E 31 B8             | 03 16 78                        | Creek     | 39.8            | 21.5                   | 42             | 12.5                  |              |                        |                               |   | 132                                  | 3.7              | 177                           |
| 38                 | 22N 49E 01 DA             | 03 16 78                        | Creek     | 53              | 39.3                   | 135            | 12.3                  |              |                        |                               |   | 256                                  | 3.7              | 375                           |
| 39                 | 22N 46E 72 AA             | 02 22 65                        | Well      | 580             | 56                     | 3000*          |                       |              |                        |                               |   | 173                                  | 4200             | 2000                          |
| 41                 | 22N 46E 32 A8             | 09 10 65                        | Well      | 500             | 64                     | 4500           | 180                   |              |                        |                               |   | 354                                  | 4800             | 4400                          |
| 42                 | 22N 47E 30 BD             | 02 02 65                        | Well      | 1300            | 220                    | 9500           | 200                   |              |                        |                               |   | 207                                  | 16000            | 2600                          |
| 45                 | 22N 48E 25 BD             | 02 01 62                        | Well      | 6               |                        | 1900*          |                       |              |                        |                               |   | 1980                                 | 50               | 1100                          |
| 46                 | 22N 48E 25 BD             | 02 10 62                        | Well      | 510             | 50                     | 19000*         |                       |              |                        |                               |   | 560                                  | 26000            | 7000                          |
| 50                 | 21N 45E 12 BB             | 09 10 66                        | Well      | 360             | 47                     | 4400           | 70                    |              |                        |                               |   | 488                                  | 3600             | 5000                          |
| 52                 | 21N 47E 36                | 08 29 75                        | Pond      | 28.5            | 247                    | 800            | 13.1                  |              |                        |                               |   | 301                                  | 170              | 1.5                           |
| 54                 | 20N 48E 18 DA             | 03 16 76                        | Creek     | 36.9            | 68                     | 350            | 15.5                  |              |                        |                               |   | 368                                  | 4                | 610                           |
| 59                 | 19N 48E 11 BA             | 03 16 76                        | Creek     | 81              | 93                     | 365            | 10                    |              |                        |                               |   | 392                                  | 9.9              | 1020                          |
| 81                 | 17N 48E 01 CC             | 11 02 69                        | Well      | 12              | 17                     | 2600*          |                       |              |                        |                               |   | 2030                                 | 24               | 2800                          |
| 82                 | 17N 46E 16 DD             | 08 27 75                        | Reservoir | 51              | 331                    | 1150           | 18.1                  |              |                        |                               |   | 176                                  | 114              | 12                            |
| 83                 | 16N 49E 17 DD             | 11 26 69                        | Well      | 18              | 8                      | 2400*          |                       |              |                        |                               |   | 1980                                 | 2600             | 22                            |
| 84                 | 16N 50E 73 CB             | 03 10 62                        | Well      | 360             | 43                     | 1100*          |                       |              |                        |                               |   | 200                                  | 59               | 1100                          |
| 85                 | 26N 54E 36 BAA            | 06 15 76                        | Creek     | 40.9            | 67                     | 728            | 11                    | .26          | .07                    |                               |   | 395                                  | 38               | 7.8                           |
| 70                 | 25N 58E 22 AAC            | 12 16 78                        | Well      | 463             | 280                    | 155            | 19                    |              |                        |                               |   | 573                                  | 76               | 1880                          |
| 71                 | 25N 58E 31 DDD            | 06 15 76                        | Creek     | 196             | 233                    | 139            | 16                    | <.01         | .06                    |                               |   | 357                                  | 1.8              | 1400                          |
| 72                 | 25N 58E 32 DDD            | 06 15 78                        | Seep      | 202             | 404                    | 1215           | 78                    | .26          | .36                    |                               |   | 781                                  | 17               | 4100                          |
| 73                 | 25N 58E 26 DD             | 10 07 75                        | Creek     | 117             | 184                    | 935            | 18                    |              |                        |                               |   | 543                                  | 13               | 88                            |
| 74                 | 25N 58E 31 CCD            | 06 15 76                        | Creek     | 72              | 52                     | 272            | 10                    | .45          | .08                    |                               |   | 301                                  |                  | 7.2                           |
| 78                 | 24N 53E 25 B8B            | 06 15 76                        | Creek     | 97              | 160                    | 774            | 17                    | .33          | .11                    |                               |   | 549                                  | 7.5              | 2025                          |
| 81                 | 24N 63E 38 CC             | 06 15 76                        | Creek     | 157             | 371                    | 1558           | 20                    | <.01         | .06                    |                               |   | 382                                  | 8                | 4850                          |
| 82                 | 24N 58E 16 DDB            | 06 15 76                        | Creek     | 84              | 49.8                   | 74             | 13                    | .54          | .04                    |                               |   | 233                                  | 9.5              | 380                           |
| 85                 | 24N 58E 29 BCA            | 08 63                           | Well      | 12000           | 1300                   | 110000*        |                       |              |                        |                               |   | 146                                  | 200000           | 280                           |
| 90                 | 23N 60E 06 B              | 10 08 75                        | Canal     | 71              | 67                     | 126            | 8                     |              |                        |                               |   | 516                                  | 12.3             | 270                           |
| 91                 | 23N 60E 06 A              | 10 08 75                        | Canal     | 32.8            | 90                     | 175            | 9.4                   |              |                        |                               |   | 537                                  | 12.8             | 360                           |
| 92                 | 23N 57E 01 DDD            | 06 15 76                        | Creek     | 96              | 68                     | 53             | 14                    | .08          | .04                    |                               |   | 220                                  | 4.2              | 480                           |
| 93                 | 23N 57E 09 DDD            | 06 15 76                        | Creek     | 110             | 111                    | 36             | 11                    | .17          | .06                    |                               |   | 296                                  | 10               | 540                           |
| 96                 | 23N 53E 36 B8C            | 06 15 76                        | Creek     | 64              | 243                    | 1940           | 15                    | .20          | .06                    |                               |   | 558                                  | 19               | 10.5                          |
| 99                 | 23N 59E 24 B              | 10 08 75                        | Canal     | 91              | 67                     | 81             | 9.5                   |              |                        |                               |   | 467                                  | 10.9             | 290                           |
| 100                | 23N 59E 25 A              | 10 08 75                        | Canal     | 107             | 74                     | 102            | 14                    |              |                        |                               |   | 863                                  | 20.6             | 190                           |
| 101                | 22N 59E 08 D8B            | 10 08 76                        | Creek     | 75              | 73                     | 127            | 9                     |              |                        |                               |   | 539                                  | 10.8             | 290                           |
| 109                | 20N 58E 29 ADD            | 06 15 76                        | Creek     | 32.1            | 4.4                    | 34             | 2.6                   | 25           | .70                    |                               |   | 108                                  | 5                | 75                            |

Notes: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated.

\* Values reported as sodium plus potassium

## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|---------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 1                  | .03            |                 | 8.84      | 22                  | 2574  | 1866                           | 388                                       | 439   | 10.8                          | EPA                  |                        |                 | Yes                           | 78W1714       |
| 2                  | .01            |                 | 8.78      | 21                  | 2760  | 2046                           | 410                                       | 427   | 11.5                          | EPA                  |                        |                 | Yes                           | 78W1715       |
| 7                  | .02            |                 | 7.9       | 21                  | 5540  | 3893                           | 2390                                      | 606   | 2.5                           | WQB                  |                        |                 | No                            | 78W2342       |
| 12                 |                |                 | 6.7       |                     |   | 134300                         | 14100                                     | 420   | 168                           | Unknown              |                        | 337M5NC         | No                            | 63M0010       |
| 13                 |                |                 | 8.3       |                     |   | 8378                           | 139                                       | 1600  | 118                           | Unknown              |                        | 217MDDY         | No                            | 69M0004       |
| 19                 | .09            |                 | 8.42      |                     | 1733  | 1427                           | 434                                       | 378   | 5.2                           | WQB                  |                        |                 | No                            | 78W0482       |
| 21                 | .26            |                 | 7.91      |                     | 593   |                                | 97  | 132   | 3.8                           | WQB                  |                        |                 | No                            | 78W0483       |
| 22                 |                |                 | 4.40      |                     |   |                                | 8340                                      | 100   |                               | Unknown              |                        | 320AMSD         | No                            | 80M0008       |
| 27                 | 1.9            |                 | 7.51      | .2                  | 1656  |                                | 390                                       | 183   | 5.4                           | WQB                  |                        |                 | No                            | 78W0486       |
| 30                 |                |                 | 8.8       |                     |   |                                | 3990                                      | 320   |                               | Unknown              |                        | 331CRLS         | No                            | 66M0028       |
| 34                 |                |                 | 7.1       |                     |   | 124600                         | 4820                                      | 120   | 288                           | Unknown              |                        | 331K88Y         | No                            | 65M0046       |
| 35                 | .06            |                 | 7.37      | .2                  | 650   |                                | 188                                       | 108   | 1.3                           | WQB                  |                        |                 | No                            | 78W0487       |
| 38                 | .37            |                 | 7.63      |                     | 1190  | 874                            | 295                                       | 208   | 3.4                           | WQB                  |                        |                 | No                            | 78W0486       |
| 39                 |                |                 | 7.5       |                     |   |                                | 1630                                      | 142   |                               | Unknown              |                        | 331K88Y         | No                            | 66M0043       |
| 41                 |                |                 | 7.4       |                     |   | 14820                          | 1510                                      | 290   | 50.4                          | Unknown              |                        | 331CRLS         | No                            | 66M0044       |
| 42                 |                |                 | 7.5       |                     |   | 29920                          | 4150                                      | 170   | 64.2                          | Unknown              |                        | 331K88Y         | No                            | 65M0046       |
| 45                 |                |                 | 8.0       |                     |   |                                | 15  | 1710  |                               | Unknown              |                        | 217DKOT         | No                            | 52M0002       |
| 46                 |                |                 | 6.9       |                     |   |                                | 1480                                      | 469   |                               | Unknown              |                        | 320AMSD         | No                            | 52M0003       |
| 50                 |                |                 | 7.4       |                     |   | 13720                          | 1090                                      | 400   | 57.8                          | Unknown              |                        | 331K88Y         | No                            | 65M0042       |
| 52                 | .01            |                 | 9.57      |                     | 4600  | 3802                           | 1090                                      | 531   | 10.5                          | WQB                  |                        |                 | No                            | 75W1761       |
| 54                 | .22            |                 | 7.79      |                     | 2094  |                                | 372                                       | 302   | 7.9                           | WQB                  |                        |                 | No                            | 78W0485       |
| 59                 | .06            |                 | 8.07      |                     | 2445  |                                | 585                                       | 321   | 6.6                           | WQB                  |                        |                 | No                            | 78W0484       |
| 81                 |                |                 | 8.2       |                     |   |                                | 100                                       | 1700  |                               | Unknown              |                        | 217MDDY         | No                            | 68M0003       |
| 62                 | .02            |                 | 9.56      |                     | 8030  | 5312                           | 1490                                      | 334   | 13.0                          | WQB                  |                        |                 | No                            | 75W1783       |
| 63                 |                |                 | 8.0       |                     |   |                                | 78  | 1620  |                               | Unknown              |                        | 217MDDY         | No                            | 69M0002       |
| 64                 |                |                 | 8.3       |                     |   |                                | 1080                                      | 262   |                               | Unknown              |                        | 331CRLS         | No                            | 52M0004       |
| 66                 | .16            |                 | 8.8       | 23                  | 3639  | 2727                           | 500                                       | 388   | 14.2                          | WQB                  |                        |                 | Yes                           | 78W1070       |
| 70                 | .34            |                 | 7.6       |                     | 3704  | 3189                           | 2310                                      | 470   | 1.4                           | WQB                  | 20                     |                 | No                            | 78W2847       |
| 71                 | .02            | .09             | 7.9       | 18                  | 2733  | 2162                           | 1450                                      | 293   | 1.6                           | WQB                  |                        |                 | Yes                           | 78W1064       |
| 72                 | .08            | .09             | 8.1       | 19                  | 7390  | 6401                           | 2170                                      | 640   | 11.4                          | WQB                  |                        |                 | Yes                           | 78W1063       |
| 73                 | .04            |                 | 8.52      |                     | 5260  | 4299                           | 1050                                      | 467   | 12.6                          | WQB                  |                        |                 | No                            | 75W2111       |
| 74                 | .06            | .10             | 7.95      | 19                  | 1827  | 1262                           | 395                                       | 247   | 8.0                           | WQB                  |                        |                 | Yes                           | 78W1062       |
| 78                 | .03            | .06             | 8.1       | 23                  | 4469  | 3351                           | 900                                       | 450   | 11.2                          | WQB                  |                        |                 | Yes                           | 78W1069       |
| 81                 | .04            | .06             | 8.3       | 19                  | 8220  | 7152                           | 1920                                      | 313   | 15.5                          | WQB                  |                        |                 | Yes                           | 78W1068       |
| 82                 | .08            | .12             | 7.7       | 10                  | 1116  | 726                            | 415                                       | 191   | 1.6                           | WQB                  |                        |                 | Yes                           | 78W1061       |
| 85                 |                |                 | 5.5       |                     |   |                                | 35300                                     | 120   |                               | Unknown              |                        | 331MDSN         | No                            | 63M0011       |
| 90                 | 2.1            |                 | 8.12      |                     | 1300  | 1072                           | 450                                       | 423   | 2.6                           | WQB                  |                        |                 | No                            | 75W2107       |
| 91                 | .17            |                 | 8.16      |                     | 1468  | 1217                           | 452                                       | 440   | 3.6                           | WQB                  |                        |                 | No                            | 75W2106       |
| 92                 | .04            | .09             | 7.5       | 19                  | 1205  | 806                            | 525                                       | 180   | 1.0                           | WQB                  |                        |                 | Yes                           | 78W1065       |
| 93                 | .04            | .11             | 7.8       | 19                  | 1391  | 964                            | 732                                       | 243   | .8                            | WQB                  |                        |                 | Yes                           | 78W1066       |
| 96                 | .07            | .15             | 8.5       | 22                  | 8210  | 7117                           | 1160                                      | 490   | 24.8                          | WQB                  |                        |                 | Yes                           | 78W1067       |
| 99                 | 1.7            |                 | 7.93      |                     | 1228  | 1009                           | 505                                       | 383   | 1.8                           | WQB                  |                        |                 | No                            | 75W2106       |
| 100                | .68            |                 | 7.98      |                     | 1386  | 1202                           | 573                                       | 568   | 1.9                           | WQB                  |                        |                 | No                            | 75W2104       |
| 101                | 1.1            |                 | 8.07      |                     | 1353  | 1124                           | 486                                       | 442   | 2.5                           | WQB                  |                        |                 | No                            | 75W2103       |
| 109                | .27            | .24             | 7.9       | 16                  | 355   | 207                            | 98  | 89  | 1.5                           | WQB                  |                        |                 | Yes                           | 78W1060       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 113                | 19N 57E 26 CCC            | 06 15 76                        | Creek  | 58              | 104                    | 298            | 11                    | 1.7          | .06                    |                               | 576                                     | 5                                    | 7.5              | 725                           |
| 121                | 16N 59E 25 8C             | 09 03 75                        | Spring | 744             | 454                    | 97             | 17.3                  |              |                        |                               | 721                                     |                                      | 33               | 3220                          |
| 126                | 25N 51E 08                | 07 27 76                        | River  | 52              | 82                     | 429            | 8.5                   | <.06         |                        |                               | 503                                     | 12                                   | 14               | 863                           |
| 127                | 20N 49E 20                | 07 27 76                        | River  | 79              | 114                    | 657            | 9.6                   | <.01         |                        |                               | 565                                     | 11                                   | 13               | 1530                          |
| 128                | 20N 49E 20                | 07 28 76                        | River  | 85              | 127                    | 579            | 9.6                   | <.01         |                        |                               | 521                                     | 34                                   | 13               | 1484                          |
| 129                | 25N 51E 24                | 07 27 76                        | River  | 55              | 83                     | 834            | 10                    | <.01         |                        |                               | 796                                     | 15                                   | 11               | 1510                          |
| 130                | 25N 51E 24                | 07 28 76                        | River  | 52              | 96                     | 880            | 10                    | .06          |                        |                               | 779                                     | 29                                   | 10               | 1692                          |
| 131                | 25N 51E 09                | 07 28 76                        | River  | 53              | 67                     | 456            | 8.7                   | .02          |                        |                               | 528                                     | 13                                   | 14               | 896                           |
| 132                | 23N 50E 19 8CD            | 05 16 52                        | Well   | 1800            | 280                    | 46000*         |                       |              |                        |                               | 280                                     |                                      | 72000            | 4200                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## of Selected Waters (Con't.)

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluo-<br>ride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 113                | .06            | .38                  | 8.3       | 16                   | 2146  | 1503                           | 500                                       | 480   | 5.3                           | WQB                  |                        |                 | Yes                           | 76W1059       |
| 121                | .02            |                      | 7.73      |                      | 4820  | 5286                           | 3720                                      | 591   | .7                            | WQB                  |                        |                 | No                            | 75W1764       |
| 126                | .08            |                      | 8.4       | 20.5                 | 2328  | 1689                           | 388                                       | 432   | 9.5                           | EPA                  |                        |                 | Yes                           | 76W1713       |
| 127                | .01            |                      | 8.34      | 20                   | 3550  | 2693                           | 967                                       | 481   | 11.1                          | EPA                  |                        |                 | Yes                           | 76W1716       |
| 128                | .01            |                      | 8.67      | 23                   | 3660  | 2589                           | 736                                       | 484   | 9.3                           | EPA                  |                        |                 | Yes                           | 76W1722       |
| 129                | .01            |                      | 8.48      | 22                   | 3975  | 2909                           | 478                                       | 877   | 16.5                          | EPA                  |                        |                 | Yes                           | 76W1717       |
| 130                | .01            |                      | 8.53      | 24                   | 4038  | 3153                           | 525                                       | 688   | 16.7                          | EPA                  |                        |                 | Yes                           | 76W1723       |
| 131                | .02            |                      | 8.46      | 20.5                 | 2426  | 1170                           | 410                                       | 455   | 9.8                           | EPA                  |                        |                 | Yes                           | 76W1718       |
| 132                |                |                      | 8.5       |                      |   |                                | 5650                                      | 230   |                               | Unknown              |                        | 337MSNC         | No                            | 52M0005       |

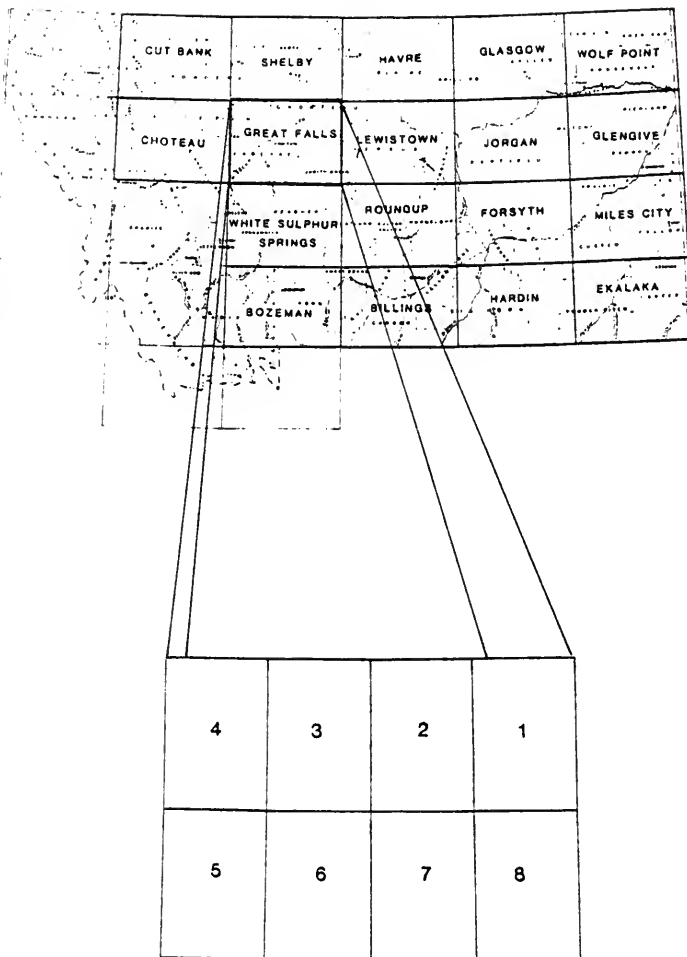
**GLENDIVE 1° x 2° Sheet**

## Trace Elements Analysis Sheet

[illegible]



# LOCATION BASE MAP

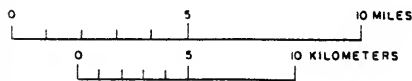
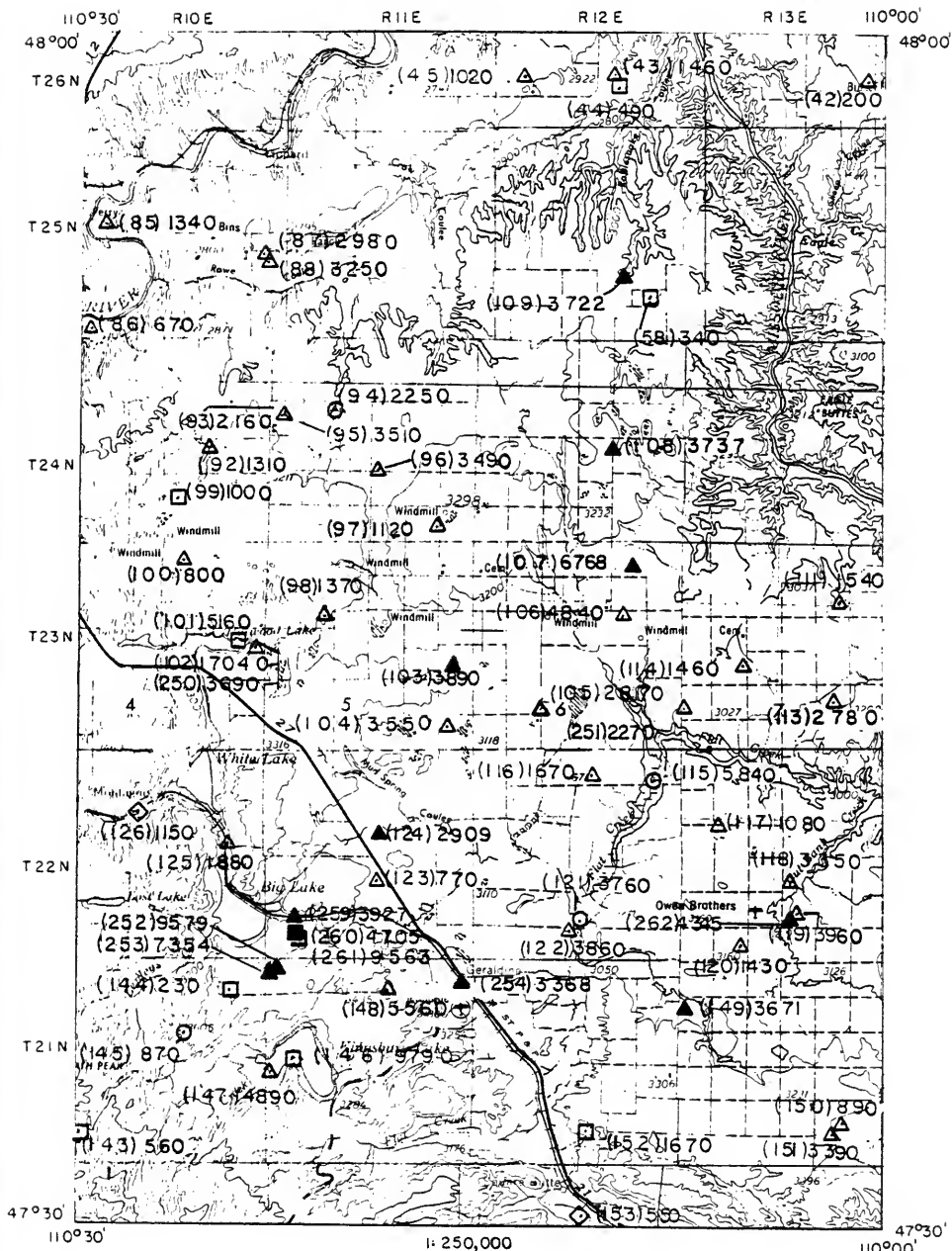


GREAT FALLS 1° x 2° SHEET



# SPECIFIC CONDUCTANCE SURVEY

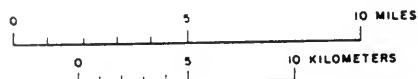
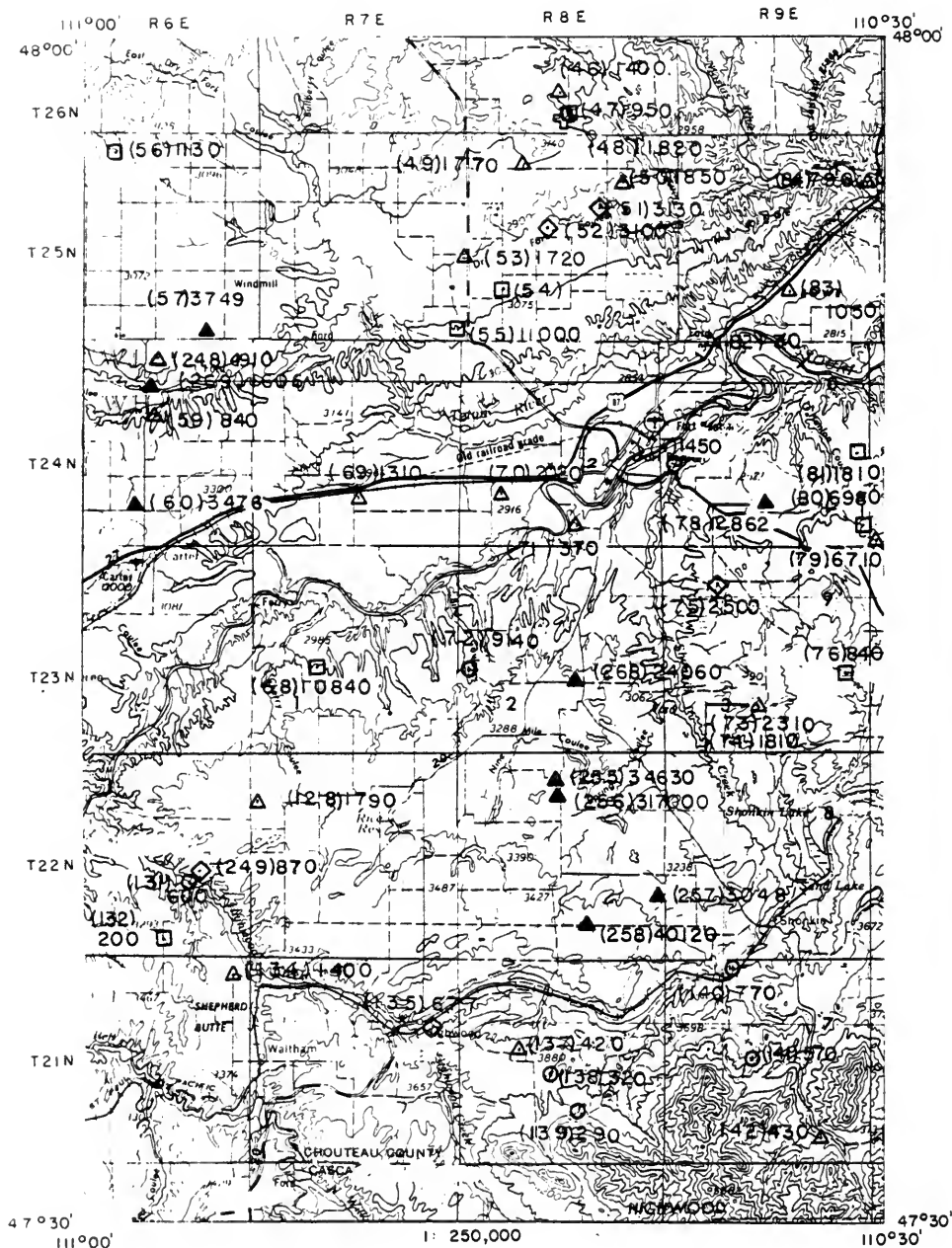
GREAT FALLS 1



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

GREAT FALLS 2



CONTOUR INTERVAL 100 FT

GREAT FALLS 3

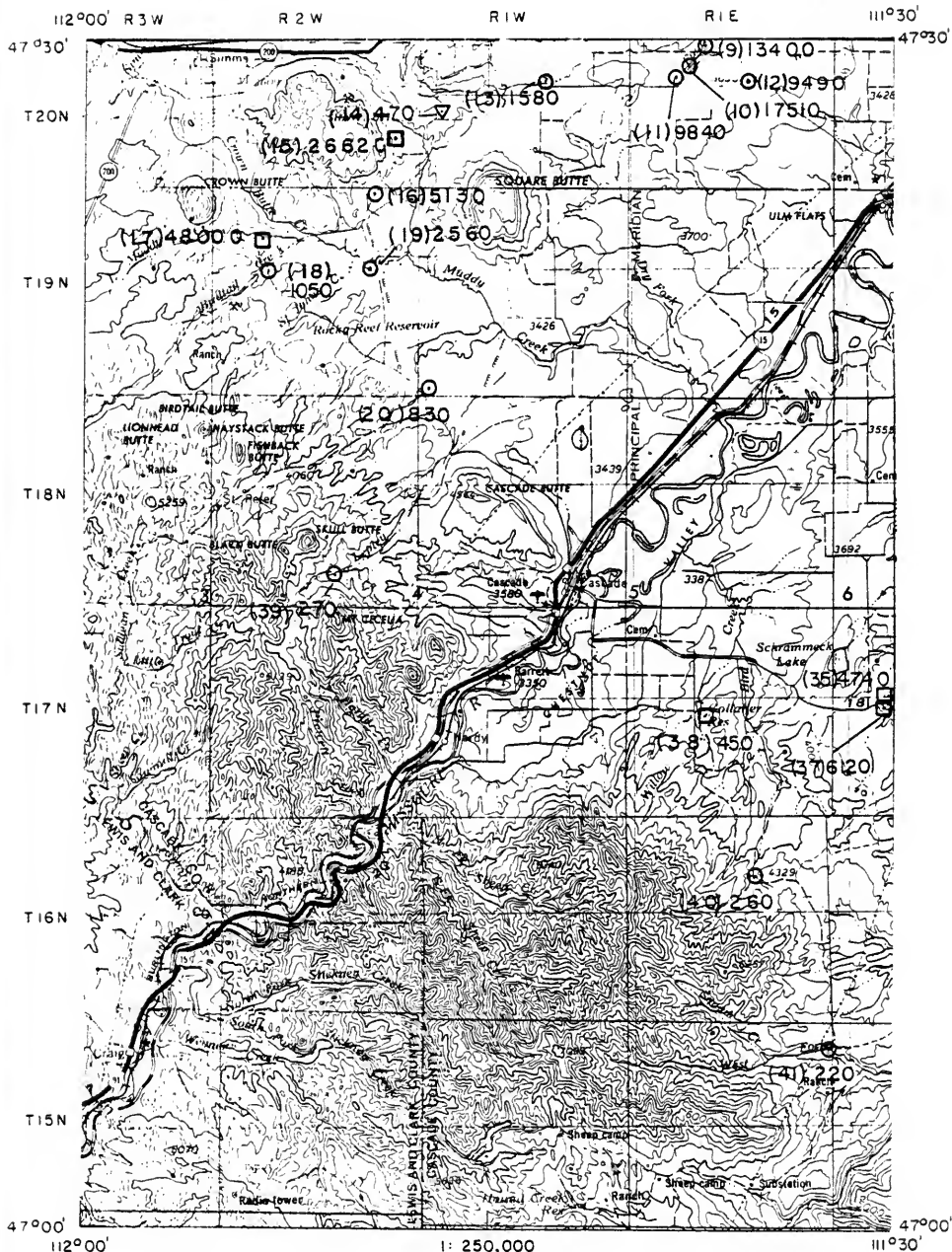


**GREAT-FALLS 4**



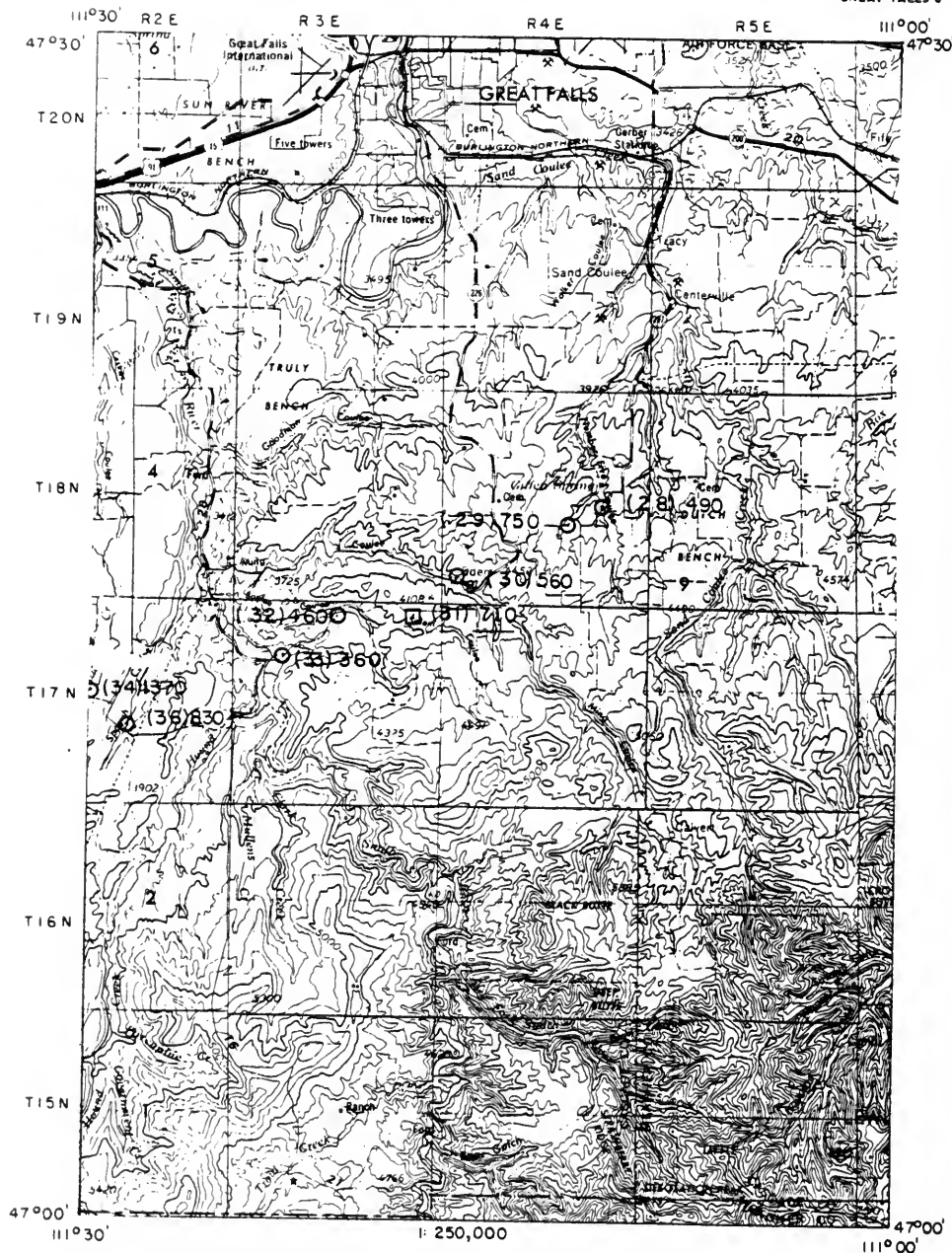
# SPECIFIC CONDUCTANCE SURVEY

GREAT FALLS 5



# SPECIFIC CONDUCTANCE SURVEY

GREAT FALLS 6

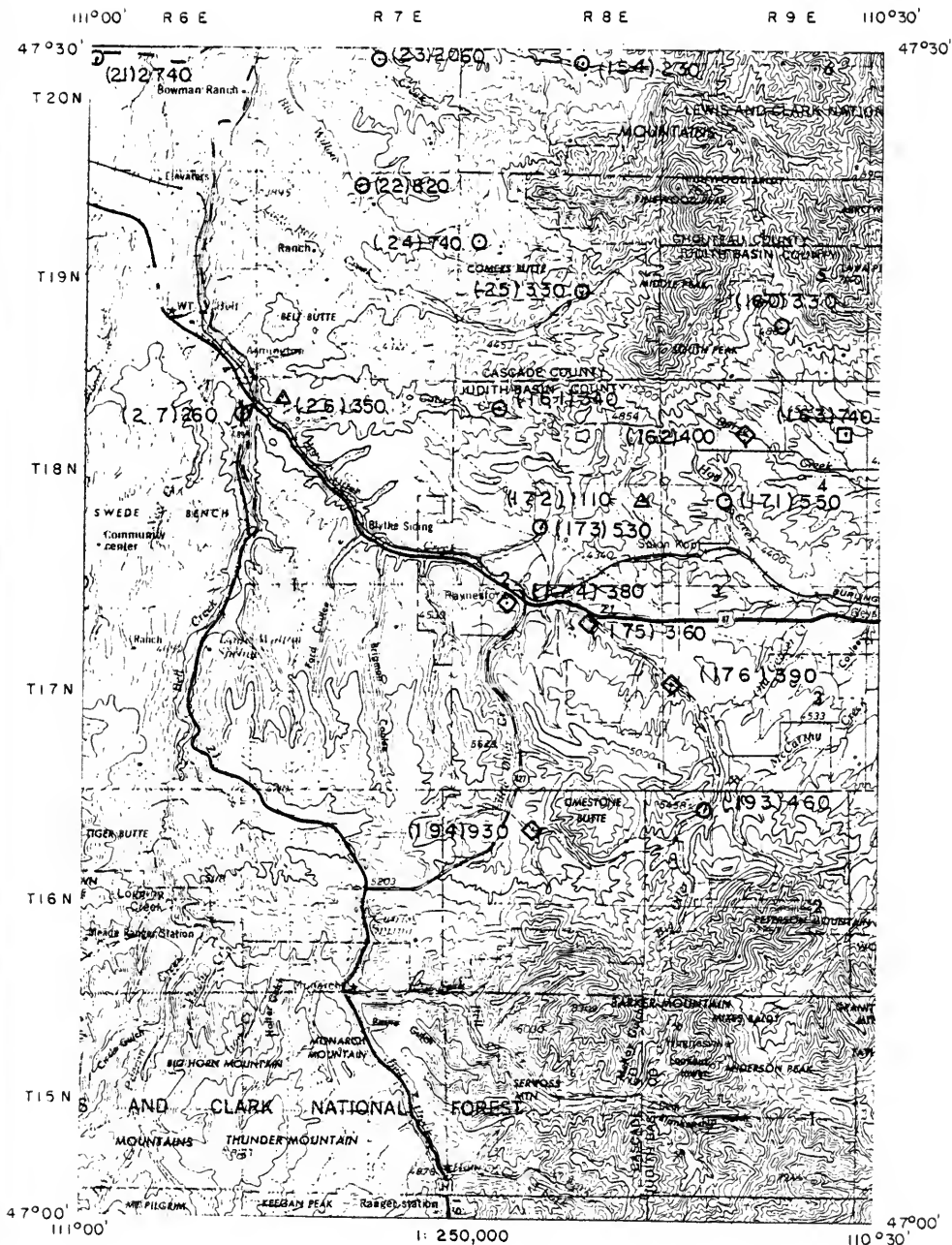


CONTOUR INTERVAL 100 FT



# SPECIFIC CONDUCTANCE SURVEY

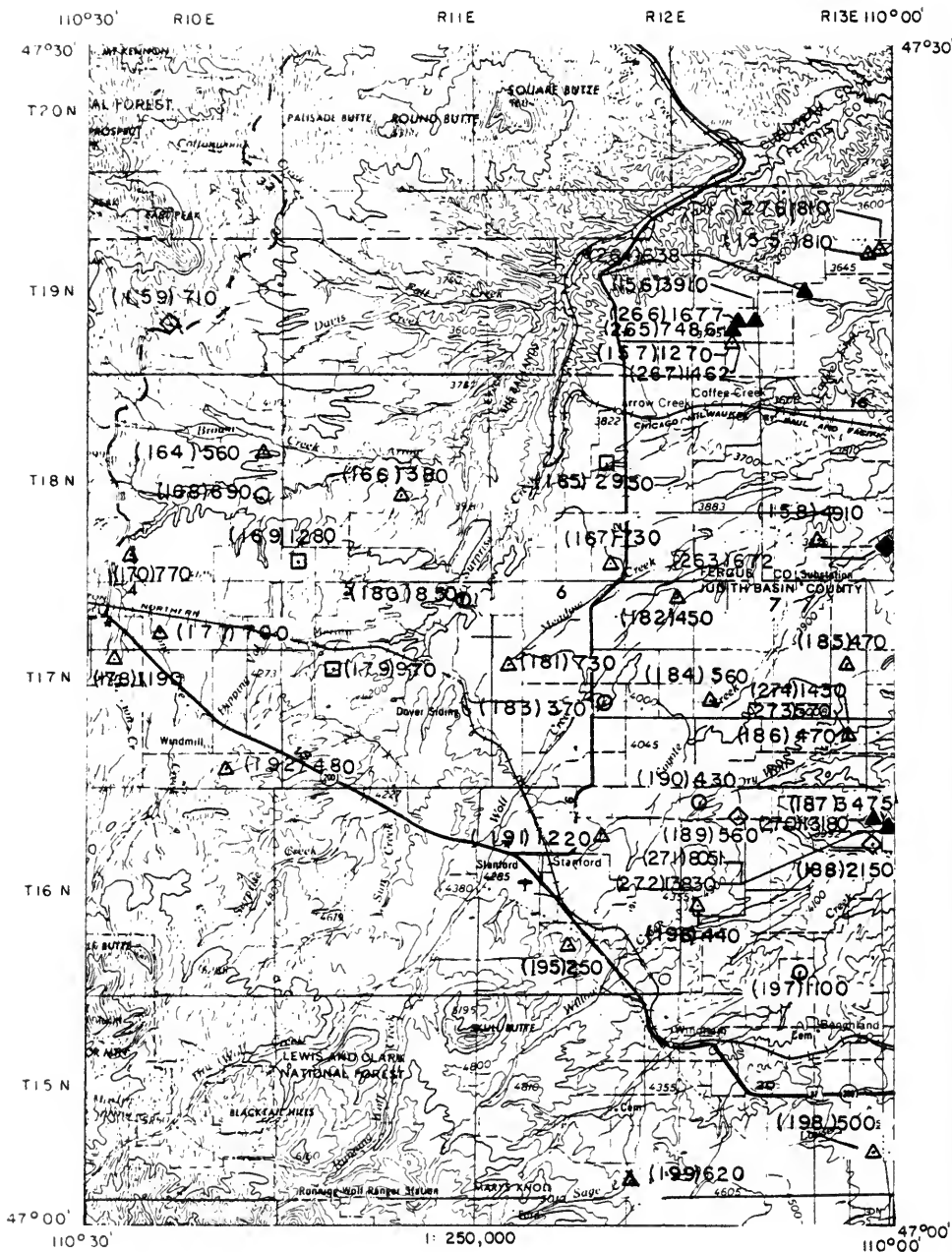
GREAT FALLS 7



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

GREAT FALLS 8



0 5 10 MILES

0 5 10 KILOMETERS

CONTOUR INTERVAL 100 FT

# GREAT FALLS 1' x 2' Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref. | Field<br>no. | County  | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description   | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>depth<br>(ft.) | Well<br>code | Donor's name               |
|-------------|--------------|---------|---------------------------|---------------------------------|--|--|--------------------------------------|---------------------|-----------------|-------------------|--|--------------|----------------------------|
| 1           | MBMG17       | Cascade | 22N 04E 33 DDDO           | 08 26 76                        | Lake   | Black Horse Lake   | 3080                                 | 14                  | no              | 3410              |  |              |                            |
| 2           | MBMG16       | Cascade | 22N 03E 25 ADA            | 08 26 76                        | Lake   | Benton Lake, shallow with much vegetation                | 3460                                 | 16.8                | no              | 3520              |  |              |                            |
| 3           | MBMG20       | Cascade | 21N 08E 17 DCC            | 08 26 76                        | Spring   | Water is from drinking fountain at Montana Power Park    | 860                                  | 14.9                | no              | 2930              |  |              | Montana Power              |
| 4           | MBMG19       | Cascade | 21N 08E 17 DCC            | 08 26 76                        | River  | Small reservoir with much vegetation                     | 860                                  | 17.1                | no              | 3304              |  |              |                            |
| 5           | MBMG18       | Cascade | 21N 08E 13 ADC            | 08 26 76                        | Reservoir                                      |  |                                      |                     |                 |                   |  |              |                            |
| 6           | MBMG2        | Cascade | 21N 02E 31 ADC            | 08 27 76                        | Creek  |  | 3130                                 | 9.8                 | no              | 3520              |  |              |                            |
| 7           | MBMG3        | Cascade | 21N 02E 31 CB             | 08 27 76                        | Creek  |  | 690                                  | 9                   | no              | 3580              |  |              |                            |
| 8           | MBMG1        | Cascade | 21N 01W 28 DA             | 08 27 76                        | Creek  | Small creek formed by irrigation runoff                  | 280                                  | 11.8                | no              | 3490              |  |              |                            |
| 9           | MBMG4        | Cascade | 20N 01E 09 CDC            | 08 27 76                        | Creek  | Four Mile Creek  | 13400                                | 10                  | no              | 3360              |  |              |                            |
| 10          | MBMG5        | Cascade | 20N 01E 17 ADA            | 08 27 76                        | Creek  | Four Mile Creek, algal deposit on either side            | 17510                                | 9.5                 | no              | 3580              |  |              |                            |
| 11          | MBMG8        | Cascade | 20N 01E 17 DCC            | 08 27 76                        | Creek  | Four Mile near source                                    | 9840                                 | 8.8                 | no              | 3580              |  |              |                            |
| 12          | MBMG9        | Cascade | 20N 01E 15 DCC            | 08 27 76                        | Creek  | Small creek on N side of road                            | 1580                                 | 10.2                | no              | 3540              |  |              |                            |
| 13          | MBMG7        | Cascade | 20N 01W 19 DB             | 08 27 76                        | Creek  | Irrigation canal   | 470                                  | 8.2                 | no              | 3530              |  |              |                            |
| 14          | MBMG3        | Cascade | 20N 01W 19 DB             | 08 27 76                        | Creek  | Small pond about 10 feet in diameter, algal sample taken | 26520                                | 11.9                | no              | 3590              |  |              |                            |
| 15          | MBMG10       | Cascade | 20N 02W 25 CA             | 08 27 76                        | Pond   |  |                                      |                     |                 |                   |  |              |                            |
| 16          | MBMG11       | Cascade | 19N 02W 02 A              | 08 27 76                        | Creek  | Small creek  | 8130                                 | 10.4                | no              | 3530              |  |              |                            |
| 17          | MBMG12       | Cascade | 19N 02W 08                | 08 25 78                        | Reservoir                                      | Reservoir on Muddy Creek, algal sample taken             | 48000                                | 27                  | no              | 3560              |  |              |                            |
| 18          | MBMG13       | Cascade | 19N 02W 17 AC             | 08 26 76                        | Creek  | Bridal Creek   | 1050                                 | 18                  | no              | 3560              |  |              |                            |
| 19          | MBMG14       | Cascade | 19N 02W 14 AC             | 08 27 76                        | Creek  | Little Muddy Creek below junction with St John Creek     | 2560                                 | 12                  | no              | 3500              |  |              |                            |
| 20          | MBMG15       | Cascade | 19N 01W 31 CC             | 08 26 76                        | Creek  | Small creek  | 830                                  | 23                  | no              | 3470              |  |              |                            |
| 21          | MBMG21       | Cascade | 20N 06E 17 CBA            | 08 26 76                        | Creek  | Roger Coulee Creek, algal present                        | 2740                                 | 18.8                | no              | 3440              |  |              |                            |
| 22          | MBMG23       | Cascade | 19N 07E 03 BDC            | 08 26 76                        | Creek  | Middle Willow Creek                                      | 820                                  | 16.2                | no              | 3520              |  |              |                            |
| 23          | MBMG22       | Cascade | 20N 07E 15 ACC            | 08 26 76                        | Creek  | Small clear creek  | 2060                                 | 14                  | no              | 4100              |  |              |                            |
| 24          | MBMG25       | Cascade | 19N 08E 18 AB8            | 08 26 76                        | Creek  | Small, slow-flowing creek                                | 740                                  | 14.9                | no              | 4100              |  |              |                            |
| 25          | MBMG26       | Cascade | 19N 08E 22 ACC            | 08 26 76                        | Creek  | Little Belt Creek  | 330                                  | 14.6                | no              |                   |  |              |                            |
| 26          | MBMG27       | Cascade | 18N 07E 06 DA             | 08 26 78                        | Well   | Located at highway rest area                             | 360                                  | 12.8                | no              | 3610              |  |              | Montana Highway Department |
| 27          | MBMG24       | Cascade | 18N 08E 01 DDC            | 08 26 76                        | Creek  | Belt Creek   | 250                                  | 17                  | no              | 3590              |  |              |                            |
| 28          | MBMG28       | Cascade | 18N 08E 23 ACC            | 08 25 76                        | Creek  | Number Five Coulee Creek                                 | 480                                  | 16                  | no              | 3820              |  |              |                            |
| 29          | MBMG29       | Cascade | 19N 04E 22 BDC            | 08 26 76                        | Creek  | Griffin Coulee   | 750                                  | 16                  | no              | 4000              |  |              |                            |
| 30          | MBMG30       | Cascade | 18N 08E 31 BDB            | 08 25 78                        | Creek  | Hing Coulee Creek  | 600                                  | 10                  | no              | 3600              |  |              |                            |

G. FALLS

GREAT FALLS 1' x 2' Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Mao<br>ref<br>no. | Field<br>number | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E=estimated<br>M=measured | Site description                                  | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>depth<br>ft. | Well<br>depth<br>ft. | Owner's name  |
|-------------------|-----------------|----------|---------------------------|---------------------------------|--|---|--------------------------------------|---------------------|-----------------|-----------------|---------------------------------|----------------------|---------------|
| 31                | MBMG39          | Cascade  | 17N 03E 01 BC             | 08 25 76                        | Reservoir                                  | Small reservoir in Boston Coulee, much vegetation | 710                                  | 17                  | no              | 3740            |                                 |                      |               |
| 32                | MBMG39          | Cascade  | 17N 03E 04 AD             | 08 25 76                        | Creek                                      | Boston Coulee Creek                               | 460                                  | 15                  | no              | 3740            |                                 |                      |               |
| 33                | MBMG37          | Cascade  | 17N 03E 08 CA             | 08 25 76                        | Creek                                      | Smith River                                       | 360                                  | 18                  | no              | 3450            |                                 |                      |               |
| 34                | MBMG35          | Cascade  | 17N 02E 17 DC             | 08 25 76                        | Creek                                      | Flat Creek  | 1370                                 | 16                  | no              | 3380            |                                 |                      |               |
| 35                | MBMG33          | Cascade  | 17N 02E 17 CD             | 08 25 76                        | Reservoir                                  | Small reservoir fed by coulee lined with willa    | 4740                                 | 24                  | no              | 3780            |                                 |                      |               |
| 36                | MBMG36          | Cascade  | 17N 02E 21 DOB            | 08 25 76                        | Creek                                      | Smith Coulee Creek                                | 830                                  | 17                  | no              | 3720            |                                 |                      |               |
| 37                | MBMG34          | Cascade  | 17N 02E 17 CD             | 08 25 76                        | Reservoir                                  | Algal sample taken                                | 8120                                 | 24                  | no              | 3780            |                                 |                      |               |
| 38                | MBMG32          | Cascade  | 17N 01E 21 BB             | 08 25 76                        | Reservoir                                  |   | 250                                  | 21                  | no              | 3500            |                                 |                      |               |
| 39                | MBMG31          | Cascade  | 18N 02W 34 AB88           | 08 25 76                        | Creek                                      | Lesley Creek                                      | 275                                  | 21                  | no              | 4260            |                                 |                      |               |
| 40                | MBMG40          | Cascade  | 18N 01E 10 D              | 08 25 76                        | Creek                                      | Brad Creek  | 260                                  | 21                  | no              | 4050            |                                 |                      |               |
| 41                | MBMG41          | Cascade  | 15N 01E 01 D              | 08 25 76                        | Creek                                      | West Fork Hound Creek                             | 220                                  | 19                  | no              | 4160            |                                 |                      |               |
| 42                | MBMG41          | Chouteau | 26N 13E 36 DBDD           | 78                              | Pond                                       | In a wheat field                                  | 200                                  | 18                  | no              | 2980            |                                 |                      | Fultz         |
| 43                | MBMG43          | Chouteau | 26N 12E 37 CABD           | 78                              | Well                                       | Domestic and stock use                            | 1450                                 | 18                  | no              | 2850            | 15                              | 20                   | Fultz         |
| 44                | MBMG44          | Chouteau | 26N 12E 27 CACA           | 78                              | Reservoir                                  | Stock use   | 490                                  | 21                  | no              | 2850            |                                 |                      | Watson & Lenn |
| 45                | MBMG45          | Chouteau | 26N 12E 30 DAAA           | 78                              | Well                                       | Domestic use                                      | 1020                                 | 19                  | no              | 2710            | 6                               |                      |               |
| 46                | MBMG55          | Chouteau | 26N 08E 28 CDDD           | 78                              | Well                                       |   | 1400                                 | 10.2                | no              | 3010            | 25                              |                      | Svensgard     |
| 47                | MBMG56          | Chouteau | 26N 08E 33 ADDB           | 78                              | Reservoir                                  |   | 960                                  | 22.3                | no              | 3010            |                                 |                      | Svensgard     |
| 48                | MBMG57          | Chouteau | 26N 08E 33 ADDB           | 78                              | Well                                       |   | 1820                                 | 27                  | no              | 2990            |                                 |                      | Anderson      |
| 49                | MBMG58          | Chouteau | 26N 08E 33 ADDB           | 78                              | Well                                       | Stock use   | 1770                                 | 11.2                | no              | 2940            |                                 |                      |               |
| 50                | MBMG59          | Chouteau | 26N 08E 11 BAC            | 78                              | Well                                       | Stock use   | 1850                                 | 23.9                | no              | 2880            | 35                              |                      |               |
| 51                | MBMG60          | Chouteau | 25N 08E 15 ABCB           | 78                              | Spring                                     |   | 3130                                 | 14.9                | no              | 2780            |                                 |                      | Lenington     |
| 52                | MBMG61          | Chouteau | 25N 08E 15 CCAA           | 78                              | Spring                                     | Water is hard, saline seeps on farm               | 3100                                 | 23.6                | no              | 2840            |                                 |                      | Lenington     |
| 53                | MBMG10          | Chouteau | 25N 07E 24 DADD           | 78                              | Well                                       | Unused  | 1720                                 | 18.4                | no              | 2900            | 45                              | 80                   | Meeks         |
| 54                | MBMG22          | Chouteau | 25N 08E 30 ADAC           | 78                              | Reservoir                                  |   |                                      |                     | no              | 2700            |                                 |                      | Allen         |
| 55                | MBMG12          | Chouteau | 25N 07E 36 DDBA           | 78                              | Reservoir                                  | Reservoir contains much algae                     | 11000                                | 20.5                | no              | 3040            |                                 |                      | Meeks         |
| 56                | MBMG9           | Chouteau | 25N 06E 05 DDAB           | 78                              | Reservoir                                  | Reservoir contains much algae                     | 1130                                 | 19                  | no              | 3170            |                                 |                      |               |
| 57                | MBMG11          | Chouteau | 25N 06E 35 DCCA           | 01 14 77                        | Well                                       | Stock use   | 3748                                 | 8                   | yes             | 3010            | 75                              | 185                  | 21CLRD Black  |
| 58                | MBMG46          | Chouteau | 25N 12E 26 DDDC           | 78                              | Pond                                       | Contains much vegetation                          | 340                                  | 22.6                | no              | 3130            |                                 |                      |               |
| 59                | MBMG88          | Chouteau | 24N 06E 15 B88B           | 78                              | Pond                                       | Contains much vegetation                          | 840                                  | 24                  | no              | 2950            |                                 |                      |               |
| 60                | MBMG87          | Chouteau | 24N 06E 28 DCCD           | 01 14 77                        | Well                                       | Domestic, stock, end lawn watering use            | 3478                                 | 12                  | yes             | 3170            | 1818                            | 217KOTN              | Fahhaugh      |

## Specific Conductivity Inventory Sheet (Con't.)

[illegible]

GREAT FALLS 1' x 2' Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>no. | Fed<br>number | County   | Location<br>T R Sec Tact Mo Day Yr | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description                             | Spec'ic<br>conductivity<br>at 25 °C | Fed<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name            |
|------------|---------------|----------|------------------------------------|--------------------|--|--|-------------------------------------|-------------------|-----------------|-------------------|--------------------------------|------------------------|-----------------|-------------------------|
| 91         | not on map    |          |                                    |                    |  |  |                                     |                   |                 |                   |                                |                        |                 |                         |
| 92         | MBMG112       | Chouteau | 24N 10E 23 B8B                     | 76 Well            |  | Domestic use                                 | 1310                                | 15                | no              | 3300              |                                | 160                    |                 | Napreghat               |
| 93         | MBMG114       | Chouteau | 24N 11E 19 CDD                     | 76 Well            |  | Domestic use                                 | 2160                                | 13                | no              | 3180              | 90                             | 204                    |                 | McFarland, W. D.        |
| 94         | MBMG115       | Chouteau | 24N 11E 19 CDD                     | 76 Creek           |  | Domestic use                                 | 2500                                | 20                | no              | 3180              |                                | 203                    |                 | McFarland, W. D.        |
| 95         | MBMG115       | Chouteau | 24N 11E 19 CDD                     | 76 Well            |  | Stock use                                    | 3510                                | 11                | no              | 3180              |                                | 203                    |                 | McFarland, W. D.        |
| 96         | MBMG117       | Chouteau | 24N 11E 22 CDD                     | 76 Well            |  | Domestic use except for drinking             | 3490                                | 15                | no              | 3200              | 144                            | 150                    |                 | Fultz, Basil            |
| 97         | MBMG118       | Chouteau | 24N 11E 35 DAD                     | 76 Well            | 25 gpm   | Domestic use                                 | 1120                                | 15                | no              | 3250              | 55                             | 115                    |                 | Cameron                 |
| 98         | MBMG129       | Chouteau | 23N 11E 17 ABAC                    | 76 Well            | 8 gpm  | Domestic use                                 | 1370                                | 16                | no              | 3230              |                                | 120                    |                 | Pontester               |
| 99         | MBMG113       | Chouteau | 23N 10E 27 CBB                     | 76 Reservoir       |  | Wildlife reservoir                           | 1000                                | 20                | no              | 3300              |                                |                        |                 | Hampton, Wayne          |
| 100        | MBMG125       | Chouteau | 23N 10E 03 CBB                     | 76 Well            |  | Domestic use                                 | 800                                 | 14                | no              | 3350              |                                | 140                    |                 |                         |
| 101        | MBMG127       | Chouteau | 23N 10E 13 BBD                     | 76 Lake            |  | Harwood Lake                                 | 5160                                | 21.5              | no              | 3210              |                                |                        |                 | Chasey, H. W.           |
| 102        | MBMG128       | Chouteau | 23N 11E 03 CBB                     | 76 Well            |  | Used for watering hens                       | 1500                                | 12                | no              | 3250              | 6                              | 12                     |                 | Judeman                 |
| 103        | MBMG129       | Chouteau | 23N 11E 28 CDD                     | 01 16 77 Well      | 3 gpm (E)                                      | Domestic use except for drinking             | 3890                                | 12                | no              | 3160              | 75                             | 135                    | 211CLRD         | Fisher, Bob             |
| 104        | MBMG131       | Chouteau | 23N 11E 38 CBB                     | 76 Well            |  | Domestic use except for drinking             | 3550                                | 15                | no              | 3120              |                                | 90                     |                 | Anderson                |
| 105        | MBMG132       | Chouteau | 23N 12E 26 DDA                     | 76 Well            |  | Domestic use, water is corrosive             | 2870                                | 14                | no              | 3110              | 40                             | 105                    |                 | Schlemmer, B            |
| 106        | MBMG134       | Chouteau | 23N 12E 14 B8B                     | 76 Well            |  | Domestic use except for drinking             | 4840                                | 13                | no              | 3060              |                                | 225                    |                 | Rosenburg               |
| 107        | MBMG133       | Chouteau | 23N 12E 02 CDD                     | 01 15 77 Well      | 3 gpm  | Stock and domestic use (except for drinking) | 6768                                | 6                 | yes             | 3120              | 120                            | 184                    | 211EGLE         | Corder                  |
| 108        | MBMG119       | Chouteau | 24N 12E 22 AAD                     | 01 15 77 Well      | 2.5 gpm  | Domestic use except for drinking             | 3737                                | 20                | yes             | 3220              | 50                             | 481                    |                 | Clark                   |
| 109        | MBMG47        | Chouteau | 25N 12E 27 ABGB                    | 01 15 77 Well      | 8 gpm  | Stock and domestic use (except for drinking) | 3722                                | 14                | yes             | 3070              | 190                            | 302                    |                 | Trunk, Andrew           |
| 110        | not on map    |          |                                    |                    |  |  |                                     |                   |                 |                   |                                |                        |                 |                         |
| 111        | MBMG182       | Chouteau | 23N 13E 11 DBB                     | 76 Well            |  | Domestic and stock use                       | 1640                                | 12                | no              | 3020              | 20                             | 60                     |                 | Ludeman                 |
| 112        | not on map    |          |                                    |                    |  |  |                                     |                   |                 |                   |                                |                        |                 |                         |
| 113        | MBMG185       | Chouteau | 23N 13E 26                         | 76 Well            |  | Domestic use except for cooking and drinking | 2780                                | 11.5              | no              | 3130              | 38                             | 38                     |                 | Judeman                 |
| 114        | MBMG183       | Chouteau | 23N 13E 20 DAD                     | 76 Well            |  | Stock use                                    | 1460                                | 18                | no              | 3140              |                                | 2800                   |                 | Judeman                 |
| 115        | MBMG140       | Chouteau | 22N 12E 01 CDD                     | 76 Creek           |  | Flat Creek, with along edge                  | 5840                                | 20                | no              | 2980              |                                |                        |                 |                         |
| 116        | MBMG141       | Chouteau | 22N 12E 03 CDD                     | 76 Well            |  | Domestic and stock use                       | 1670                                | 17                | no              | 3150              |                                | 110                    |                 | Farbanks                |
| 117        | MBMG170       | Chouteau | 22N 13E 17 B8B                     | 76 Well            |  | Domestic use                                 | 1060                                | 18                | no              | 3060              |                                | 110                    |                 | Whelan                  |
| 118        | MBMG171       | Chouteau | 22N 13E 22 CBB                     | 76 Well            |  | Domestic use                                 | 3360                                | 12                | no              | 3060              |                                | 110                    |                 | Rowland                 |
| 119        | MBMG172       | Chouteau | 22N 13E 27 CDD                     | 76 Well            |  | Domestic use except for drinking             | 2500                                | 12                | no              | 3060              |                                | 110                    |                 | Rowland                 |
| 120        | MBMG173       | Chouteau | 22N 13E 31 DDA                     | 76 Well            |  | Domestic use                                 | 1430                                | 18                | no              | 3100              |                                | 2160                   |                 | Quinn, Tom<br>Quinn, L. |

## GREAT FALLS 1 x 2 Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec 1/4ct | Collection<br>date<br>Mo. Yr. | Flow or yield<br>E-estimated<br>M-measured | Site description                                  | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aufler<br>code | Owner's name       |
|--------------------|-----------------|----------|---------------------------|-------------------------------|--|---|--------------------------------------|----------------------|-----------------|-----------------|---------------------------------|----------------------|----------------|--------------------|
| 121                | MBMG142         | Chouteau | 22N 12E 27 CCC            | 76 Creek                      |  | Flat Creek, contains much vegetation              | 3750                                 | 23                   | no              | 3000            |                                 |                      |                |                    |
| 122                | MBMG143         | Chouteau | 22N 12E 33 AAC            | 76 Well                       |  | Stock use   | 3850                                 | 13                   | no              | 3060            | 20                              |                      |                |                    |
| 123                | MBMG139         | Chouteau | 22N 11E 22 CCC            | 76 Well                       |  | Domestic and stock use, water has a sulphur smell | 770                                  | 20                   | no              | 3180            |                                 | 1918                 |                | Byth, Fred         |
| 124                | MBMG138         | Chouteau | 22N 11E 15 CCC            | 01 15 77 Well                 |  | Stock and domestic use (except for drinking)      | 2909                                 | 6                    | yes             | 3130            | 26                              | 70                   | 211CLRD        | Myers              |
| 125                | MBMG137         | Chouteau | 22N 10E 14 DDB            | 76 Well                       |  | Domestic and stock use                            | 1880                                 | 12                   | no              | 3180            | 6                               | 18                   |                | Tate, Vick         |
| 126                | MBMG136         | Chouteau | 22N 10E 09 CCC            | 76 Spring                     |  | Domestic and stock use                            | 1150                                 | 23                   | no              | 3180            |                                 |                      |                | Peterson, William  |
| 127                | MBMG135         | Chouteau | 22N 07E 07 BCC            | 76 Well                       |  | Domestic and stock use                            | 1790                                 | 14                   | no              | 3310            | 1251                            | 1311                 |                | Kerstenberger      |
| 128                | MBMG95          | Chouteau |                           |                               |  |   |                                      |                      |                 |                 |                                 |                      |                |                    |
| 129                | not on map      |          |                           |                               |  |   |                                      |                      |                 |                 |                                 |                      |                |                    |
| 130                | not on map      |          |                           |                               |  |   |                                      |                      |                 |                 |                                 |                      |                |                    |
| 131                | MBMG97          | Chouteau | 22N 08E 23 CCC            | 76 Creek                      | 3 cfs                                      | Highwood Creek                                    | 600                                  | 20                   | no              | 2930            |                                 |                      |                |                    |
| 132                | MBMG99          | Chouteau | 22N 08E 34 DDB            | 76 Reservoir                  |  | Stock reservoir                                   | 200                                  | 21                   | no              | 3350            |                                 |                      |                |                    |
| 133                | MBMG101         | Chouteau | 21N 08E 07 AAC            | 76 Well                       |  | Domestic and stock use                            | 1280                                 | 15                   | no              | 3240            | 450                             | 750                  |                | Retting<br>Foster  |
| 134                | MBMG100         | Chouteau | 21N 08E 01 ACD            | 76 Well                       |  | Domestic use except for drinking                  | 1400                                 | 15                   | no              | 3320            | 4                               |                      |                |                    |
| 135                | MBMG162         | Chouteau | 21N 07E 13 AAA            | 02 18 77 Spring               | 200 gpm (E)                                |   | 677                                  | 5.2                  | yes             | 3680            |                                 |                      |                |                    |
| 136                | not on map      |          |                           |                               |  |   |                                      |                      |                 |                 |                                 |                      |                |                    |
| 137                | MBMG144         | Chouteau | 21N 08E 17 DDB            | 76 Well                       |  | Domestic use                                      | 420                                  | 15                   | no              | 3400            | 10                              | 17                   |                | Gary               |
| 138                | MBMG145         | Chouteau | 21N 08E 21 AAC            | 76 Creek                      | 0.5 cfs                                    | Spring Creek, contains much vegetation            | 320                                  | 21                   | no              | 3900            |                                 |                      |                |                    |
| 139                | MBMG146         | Chouteau | 21N 08E 27 CAA            | 76 Creek                      | 1 cfs                                      | Tributary to Spring Creek                         | 280                                  | 21                   | no              | 4000            |                                 |                      |                |                    |
| 140                | MBMG147         | Chouteau | 21N 08E 05 AAC            | 76 Creek                      | 0.1 cfs                                    | Say Creek   | 770                                  | 24                   | no              | 3350            |                                 |                      |                |                    |
| 141                | MBMG148         | Chouteau | 21N 08E 18 DCC            | 76 Creek                      | 0.1 cfs                                    | Tributary to West Branch Shonkin Creek            | 670                                  | 18                   | no              | 3750            |                                 |                      |                | Robert, Bill       |
| 142                | MBMG149         | Chouteau | 21N 08E 35 ABC            | 76 Well                       |  | Domestic use                                      | 430                                  | 18                   | no              | 4080            |                                 |                      |                |                    |
| 143                | MBMG150         | Chouteau | 21N 10E 31 BAA            | 76 Pond                       |  |   | 560                                  | 17                   | no              | 3850            |                                 |                      |                |                    |
| 144                | MBMG151         | Chouteau | 21N 10E 02 DDB            | 76 Pond                       |  |   | 230                                  | 18                   | no              | 3200            |                                 |                      |                |                    |
| 145                | MBMG161         | Chouteau | 21N 10E 15 ACC            | 76 Creek                      |  | Lapley Creek                                      | 870                                  | 15                   | no              | 3320            |                                 |                      |                | Big Sag Cattle Co. |
| 146                | MBMG164         | Chouteau | 21N 11E 18 DDD            | 76 Lake                       |  | Kingsbury Lake, sits along shore                  | 8700                                 | 26                   | no              | 3200            |                                 |                      |                | Big Sag Cattle Co. |
| 147                | MBMG155         | Chouteau | 21N 11E 18 BBA            | 76 Well                       |  | Stock use   | 4890                                 | 11.5                 | no              | 3330            |                                 |                      |                | Big Sag Cattle Co. |
| 148                | MBMG153         | Chouteau | 21N 11E 03 DCC            | 76 Well                       |  | Domestic use except for drinking                  | 5560                                 | 13                   | no              | 3390            |                                 | 90                   |                | Deeks, N. C.       |
| 149                | MBMG177         | Chouteau | 21N 13E 07 BBA            | 01 15 77 Well                 | 30 gpm (E)                                 | Stock and domestic use (except for drinking)      | 3671                                 | 7                    | yes             | 3120            | 8                               | 17                   | 112DRFT        | Goodhart, C.       |
| 150                | MBMG178         | Chouteau | 21N 13E 26 DCA            | 76 Well                       |  | Domestic use                                      | 890                                  | 17                   | no              | 3370            | 30                              |                      |                | Goodhart, J.       |

## GREAT FALLS 1' x 2' Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Fault<br>number | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E = estimated<br>M = measured | Site description                   | Specific<br>conductivity<br>at 25 C | Field<br>temp<br>C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name  |
|-------------|-----------------|--------------|---------------------------|---------------------------------|-----------|--|------------------------------------|-------------------------------------|--------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|---------------|
| 151         | MBMG129         | Chouteau     | 21N 13E 26 DCBD           | 76                              | Well      |  | Stock use                          | 3390                                | 12                 | no              | 3160              |                                   | 80                     |                 | Goodhart      |
| 152         | MBMG148         | Chouteau     | 21N 13E 24 BAOB           | 76                              | Pond      |  | High water taken                   | 1810                                | 20                 | no              | 3140              |                                   |                        |                 |               |
| 153         | MBMG158         | Chouteau     | 20N 12E 10                | 76                              | Spring    |  | Municipal use                      | 550                                 | 13                 | no              | 3600              |                                   |                        |                 |               |
| 154         | MBMG157         | Chouteau     | 20N 08E 15 DBD            | 76                              | Creek     | 35 cfs   | Upper Highway Creek                | 230                                 | 21.5               | no              | 4090              |                                   |                        |                 |               |
| 155         | MBMG84          | Fergus       | 19N 13E 12 CD             | 76                              | Well      |  | Domestic use                       | 810                                 | 17                 | no              |                   | Flowing                           |                        |                 | Vester, Hugh  |
| 156         | 76MT248         | Fergus       | 19N 13E 29 AAA            | 08                              | 21        | 76   | Well                               | 3810                                | 14                 | yes             |                   | 8                                 | 24                     | 110TRHC         | Birkman       |
| 157         | 76MT247         | Fergus       | 19N 13E 29 BCBD           | 09                              | 21        | 76   | Well                               | 1270                                | 16                 | yes             |                   | 6                                 | 26                     | 110TRHC         | Birkman       |
| 158         | MBMG87          | Fergus       | 18N 13E 27 DC             | 76                              | Well      |  | Unused, test well BR 11 D 60       | 4910                                | 13                 | no              |                   | 8                                 |                        |                 | Birkman       |
| 159         | MBMG2           | Judith Basin | 19N 10E 28                | 76                              | Well      |  | Water is not used for drinking     | 2510                                | 14                 | no              | 3800              |                                   |                        |                 | McDonald      |
| 160         | MBMG1           | Judith Basin | 19N 08E 27                | 76                              | Creek     | 1.5 cfs  | Domestic use                       | 330                                 | 15                 | no              | 4890              |                                   |                        |                 |               |
| 161         | MBMG3           | Judith Basin | 18N 08E 05 CD             | 76                              | Creek     |  | Dard Creek                         |                                     |                    |                 |                   |                                   |                        |                 |               |
| 162         | MBMG4           | Judith Basin | 18N 08E 09                | 76                              | Spring    | 0.25 cfs                                       | Cora Creek                         | 340                                 | 18                 | no              | 4700              |                                   |                        |                 | Skelton       |
| 163         | MBMG5           | Judith Basin | 18N 08E 12                | 76                              | Spring    |  | Domestic use                       | 400                                 | 18                 | no              | 4520              |                                   |                        |                 | Leland        |
| 164         | MBMG6           | Judith Basin | 18N 10E 13                | 76                              | Well      |  | Stock reservoir                    | 740                                 | 12                 | no              | 4520              |                                   |                        |                 | Black         |
| 165         | MBMG21          | Judith Basin | 18N 12E 15                | 76                              | Reservoir |  | Domestic use                       | 860                                 | 14.5               | no              | 4000              |                                   | 1100                   |                 |               |
| 166         | MBMG20          | Judith Basin | 18N 11E 22                | 76                              | Well      | 7 gpm  | Domestic use                       | 2950                                | 19                 | no              | 3600              |                                   |                        |                 |               |
| 167         | MBMG24          | Judith Basin | 18N 11E 34                | 76                              | Well      |  | Domestic use                       | 380                                 | 12                 | no              | 3900              |                                   | 1135                   |                 | Poller        |
| 168         | MBMG9           | Judith Basin | 18N 11E 24                | 76                              | Creek     | 2 cfs  | Domestic use, water corrodes pipes | 750                                 | 16                 | no              | 4000              |                                   | 25                     |                 | Myhrstic      |
| 169         | MBMG10          | Judith Basin | 18N 11E 32                | 76                              | Well      |  | Arrow Creek                        | 690                                 | 18.5               | no              | 4200              |                                   |                        |                 |               |
| 170         | MBMG11          | Judith Basin | 18N 10E 32                | 76                              | Well      |  | Domestic use                       | 1280                                | 24                 | no              | 4150              |                                   |                        |                 | Kolar         |
| 171         | MBMG8           | Judith Basin | 18N 08E 20 AD             | 76                              | Creek     | 0.6 cfs  | Domestic use                       | 770                                 | 12                 | no              | 4125              | Flowing                           |                        |                 |               |
| 172         | MBMG7           | Judith Basin | 18N 08E 24                | 76                              | Well      |  | Hay Creek                          | 550                                 | 17                 | no              | 4400              |                                   |                        |                 |               |
| 173         | MBMG10          | Judith Basin | 18N 08E 28                | 76                              | Creek     | 0.25 cfs                                       | Domestic use                       | 1110                                | 19                 | no              | 4200              |                                   |                        |                 |               |
| 174         | MBMG12          | Judith Basin | 17N 08E 05                | 76                              | Creek     |  | Star Coulee                        | 630                                 | 18                 | no              | 4340              |                                   |                        |                 | Bluch         |
| 175         | MBMG13          | Judith Basin | 17N 08E 10 AA             | 76                              | Spring    |  | Located 100 yards NE of house      | 390                                 | 13                 | no              | 4300              |                                   |                        |                 |               |
| 176         | MBMG16          | Judith Basin | 17N 08E 18 CDDC           | 76                              | Spring    | 30 gpm   | Domestic use                       | 360                                 | 17                 | no              | 4400              |                                   |                        |                 |               |
| 177         | MBMG15          | Judith Basin | 17N 08E 17 B              | 76                              | Well      | 8 gpm  | Domestic use                       | 390                                 | 16.7               | no              | 4410              |                                   | 595                    |                 | Boon, Conrad  |
| 178         | MBMG28          | Judith Basin | 17N 11E 17                | 76                              | Well      |  | Stock reservoir                    | 700                                 | 14                 | no              | 4200              |                                   |                        |                 | Harlow        |
| 180         | MBMG23          | Judith Basin | 17N 11E 01                | 76                              | Creek     | 1.8 cfs  | Surprise Creek                     | 1180                                | 13                 | no              | 4200              | Flowing                           | 200                    |                 | Evans, Gerald |
|             |                 |              |                           |                                 |           |  |                                    | 850                                 | 22                 | no              | 4000              |                                   |                        |                 |               |



## GREAT FALLS 1' x 2' Sheet (Con't)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no., number | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                             | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name   |
|-------------|----------------------|--------------|---------------------------|---------------------------------|--|--|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|----------------|
| 181         | MBMG27               | Judith Basin | 17N 12E 18                | 76 Well                         |  | Domestic use                                 | 720                                  | 18                   | no              | 4150              |                                   | 35                     |                 | Mitchell       |
| 182         | MBMG28               | Judith Basin | 17N 12E 01                | 76 Well                         |  | Domestic use                                 | 720                                  | 17                   | no              | 4000              |                                   |                        |                 | Lefkand        |
| 183         | MBMG29               | Judith Basin | 17N 12E 22                | 76 Well                         | 1.5 cfs  | Wolf Creek                                   | 370                                  | 27                   | no              | 3650              |                                   |                        |                 | Potter, Robert |
| 184         | MBMG30               | Judith Basin | 17N 13E 19                | 76 Well                         |  | Domestic use                                 | 860                                  | 15                   | no              | 3850              | 5                                 | 27                     |                 | Hest           |
| 185         | MBMG28               | Judith Basin | 17N 13E 14                | 76 Well                         |  | Domestic use                                 | 470                                  | 15                   | no              | 3950              | flowing                           | 1500                   |                 |                |
| 186         | MBMG31               | Judith Basin | 17N 13E 26                | 76 Well                         |  | Domestic use                                 | 470                                  | 16                   | no              | 3800              | flowing                           | 1565                   |                 | Smith, George  |
| 187         | 76M1740              | Judith Basin | 16N 14E 07 BDAA           | 08 21 76 Well                   |  | Unused, test well HB 1 D 54                  | 3475                                 | 15                   | yes             | 3800              | 8                                 | 28                     | 21CLHD          | Holzer         |
| 188         | MBMG32               | Judith Basin | 16N 13E 12                | 76 Spring                       |  | Domestic use, spring flows into Willow Creek | 2150                                 | 12                   | no              | 3800              |                                   |                        |                 | Laflock        |
| 189         | MBMG33               | Judith Basin | 16N 13E 15                | 76 Spring                       |  | Domestic use                                 | 860                                  | 8                    | no              | 4150              |                                   |                        |                 | Henick, J. R.  |
| 190         | MBMG36               | Judith Basin | 16N 13E 06                | 76 Creek                        |  | Dry Wolf Creek                               | 430                                  | 16                   | no              | 4200              |                                   |                        |                 |                |
| 191         | MBMG36               | Judith Basin | 16N 12E 10                | 76 Well                         |  | Domestic use                                 | 1220                                 | 16                   | no              | 4200              | 390                               | 400                    |                 | Leland         |
| 192         | MBMG17               | Judith Basin | 17N 10E 35                | 76 Well                         | 150 gpm  |  | 480                                  | 10                   | no              | 4600              | 20                                | 562                    |                 | Evans, Robert  |
| 193         | MBMG18               | Judith Basin | 16N 08E 05 DBAD           | 76 Creek                        | 40 cfs   | Otter Creek                                  | 930                                  | 12.9                 | no              | 4770              |                                   |                        |                 | Anderson       |
| 194         | MBMG19               | Judith Basin | 16N 08E 09 AD8C           | 76 Spring                       |  |  | 930                                  | 13                   | no              | 4650              |                                   |                        |                 | Benjamin       |
| 195         | MBMG50               | Judith Basin | 16N 12E 28                | 76 Well                         |  |  | 250                                  | 12.4                 | no              | 4000              |                                   | 800                    |                 |                |
| 196         | MBMG49               | Judith Basin | 16N 13E 19                | 76 Well                         |  | Domestic use                                 | 440                                  | 10                   | no              | 4300              |                                   | 1200                   |                 | Nelson, Edith  |
| 197         | MBMG51               | Judith Basin | 16N 13E 14                | 76 Creek                        |  | Bege Creek                                   | 1100                                 | 16                   | no              | 4000              |                                   |                        |                 | Hodge          |
| 198         | MBMG55               | Judith Basin | 15N 13E 25                | 76 Well                         | 2 cfs  | Domestic use and lawn irrigation             | 820                                  | 16.3                 | no              | 4300              | 6                                 | 28                     |                 | Larson         |
| 199         | MBMG55               | Judith Basin | 15N 12E 35                | 76 Well                         |  | Domestic use                                 | 820                                  | 17                   | no              | 4000              |                                   |                        |                 | Maurel, Mary   |
| 200         | MBMG85               | Teton        | 25N 02E 12                | 76 Well                         |  | Domestic use                                 | 1580                                 | 16                   | no              | 3190              | 4                                 | 20                     |                 | Maurel, Mary   |
| 201         | MBMG84               | Teton        | 25N 02E 12                | 76 Well                         | 15 gpm   | Domestic use                                 | 1340                                 | 18                   | no              | 3190              | 4                                 | 20                     |                 | Maurel, Mary   |
| 202         | MBMG81               | Teton        | 25N 02E 09                | 76 Well                         |  | Domestic use                                 | 920                                  | 13                   | no              | 3290              |                                   |                        |                 | Maurel         |
| 203         | MBMG83               | Teton        | 25N 02E 07                | 76 Well                         |  | Domestic use                                 | 1410                                 | 17.5                 | no              | 3230              |                                   |                        |                 | Doherty        |
| 204         | MBMG82               | Teton        | 25N 01E 12                | 76 River                        | 150 cfs  | Teton River                                  | 930                                  | 18                   | no              | 3240              |                                   |                        |                 |                |
| 205         | MBMG80               | Teton        | 25N 01E 11                | 08 29 76 Well                   |  |  | 1760                                 | 19                   | no              | 3260              |                                   | 18                     |                 | Hazel Brothers |
| 206         | MBMG25               | Teton        | 25N 02W 14                | 76 River                        | 40 cfs   | Teton River                                  | 1050                                 | 18                   | no              | 3410              |                                   |                        |                 |                |
| 207         | MBMG24               | Teton        | 25N 02W 11                | 76 Creek                        | 10 cfs   | Muddy Creek                                  | 880                                  | 19                   | no              | 3400              |                                   |                        |                 |                |
| 208         | MBMG22               | Teton        | 25N 02W 32                | 76 Reservoir                    |  |  | 210                                  | 19.5                 | no              | 3580              |                                   |                        |                 |                |
| 209         | not on map           |              |                           |                                 |  |  |                                      |                      |                 |                   |                                   |                        |                 |                |
| 210         | MBMG21               | Teton        | 25N 03W 03                | 76 Well                         |  | Domestic use                                 | 570                                  | 19                   | no              | 3700              | flowing                           | 123                    |                 | O'Keeffe, John |

## GREAT FALLS 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref<br>no. | Field<br>number | County | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E=estimated<br>M=measured | Source                                       | Site description                             | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft) | Static<br>water<br>level<br>(ft) | Well<br>depth<br>(ft) | Aquifer<br>code | Owner's name      |
|-------------------|-----------------|--------|---------------------------|---------------------------------|--|--|--|--------------------------------------|---------------------|-----------------|------------------|----------------------------------|-----------------------|-----------------|-------------------|
| 211               | MBMG27          | Teton  | 26N Q3W 16                | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 970                                  | 10                  | no              | 3740             | 49                               | 149                   |                 | Larson            |
| 212               | MBMG28          | Teton  | 25N Q3W 14                | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 520                                  | 19                  | no              | 3660             |                                  |                       |                 | Revere            |
| 213               | not on map      |        |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 214               | not on map      |        |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 215               | MBMG75          | Teton  | 24N Q1E 12 DDB            | 76 Well                         |  | Stock use                                    | Stock use                                    | 3750                                 | 10                  | no              | 3580             | 10                               | 14                    |                 | Lock, Frank       |
| 216               | MBMG76          | Teton  | 24N Q2E 18                | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 1530                                 | 14                  | no              | 3600             |                                  | 16                    |                 | Goodell           |
| 217               | not on map      |        |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 218               | MBMG47          | Teton  | 24N Q2E 30 CAB            | 76 Well                         |  | Domestic use except for drinking             | Domestic use except for drinking             | 1340                                 | 16                  | no              | 3760             |                                  | 20                    |                 | Schultz           |
| 219               | MBMG48          | Teton  | 23N Q1W 03 AAC            | 01 17 76 Well                   |  | Domestic use [?] except for drinking         | Domestic use [?] except for drinking         | 21700                                | 12                  | yes             | 3840             |                                  | 97                    |                 | Tuckers, E        |
| 220               | not on map      |        |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 221               | MBMG50          | Teton  | 23N Q1W 32 CDC            | 76 Well                         |  | Domestic use except for drinking             | Domestic use except for drinking             | 3960                                 | 16                  | no              | 3600             |                                  | 108                   |                 | Keel              |
| 222               | MBMG51          | Teton  |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 223               | MBMG52          | Teton  | 23N Q2W 03 DAB            | 76 Well                         | 2 gpm                                      | Stock use                                    | Stock use                                    | 2590                                 | 11.5                | no              | 3780             | 7                                | 10                    |                 | Nelson            |
| 224               | MBMG53          | Teton  | 23N Q2W 03 DAB            | 76 Well                         | 2 gpm                                      | Stock use                                    | Stock use                                    | 2540                                 | 16                  | no              | 3780             |                                  |                       |                 | Nelson            |
| 225               | not on map      |        |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 226               | MBMG54          | Teton  | 24N Q2W 32 ADC            | 12 08 76 Well                   |  | Domestic use except for drinking             | Domestic use except for drinking             | 2600                                 | 17                  | yes             | 3800             |                                  | 90                    |                 | Hagen             |
| 227               | MBMG55          | Teton  | 24N Q2W 32 ADC            | 12 08 76 Well                   |  | Stock use                                    | Stock use                                    | 6495                                 | 7                   | yes             | 3880             |                                  | 90                    | 211CLHD         |                   |
| 228               | not on map      |        |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 229               | MBMG60          | Teton  | 23N Q3W 04 DDA            | 76 Spring                       |  | Not in use                                   | Not in use                                   | 3570                                 | 17                  | no              | 4040             |                                  | 13                    |                 | Bourne, Ed        |
| 230               | MBMG61          | Teton  | 23N Q3W 10 DDA            | 76 Well                         |  | Stock and domestic use (except for drinking) | Stock and domestic use (except for drinking) | 600                                  | 10                  | no              | 4060             |                                  | 18                    |                 | Anderson, Richard |
| 231               | MBMG62          | Teton  | 23N Q3W 24 B8B            | 76 Well                         |  | Stock and domestic use (except for drinking) | Stock and domestic use (except for drinking) | 1870                                 | 15                  | no              | 3660             |                                  | 24                    |                 | Dries, Richard    |
| 232               | MBMG63          | Teton  | 23N Q1W 19 B8C            | 76 Creek                        |  | Big Muddy Creek                              | Big Muddy Creek                              | 10870                                | 21                  | no              | 3700             |                                  |                       |                 |                   |
| 233               | MBMG67          | Teton  | 23N Q1W 34 BAA            | 76 Creek                        | 10 cfs                                     | Muddy Creek                                  | Muddy Creek                                  | 720                                  | 17                  | no              | 3740             |                                  |                       |                 |                   |
| 234               | MBMG68          | Teton  | 22N Q1W 04 DDA            | 76 Well                         | 20 gpm                                     | Domestic use                                 | Domestic use                                 | 980                                  | 12.5                | no              | 3660             | 12                               | 18                    |                 | Gattel, Arnold    |
| 235               | MBMG69          | Teton  | 22N Q2W 17 B8B            | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 540                                  | 12                  | no              | 3890             | 10                               | 18                    |                 | Verick            |
| 236               | not on map      |        |                           |                                 |  |  |  |                                      |                     |                 |                  |                                  |                       |                 |                   |
| 237               | MBMG66          | Teton  | 22N Q2W 17 B8B            | 76 Well                         |  | Used for watering garden                     | Used for watering garden                     | 490                                  | 18                  | no              | 3890             | 2                                | 10                    |                 | Meyer, Al         |
| 238               | MBMG68          | Teton  | 22N Q3W 11 CCC            | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 420                                  | 12                  | no              | 3940             |                                  | 40                    |                 |                   |
| 239               | MBMG69          | Teton  | 22N Q3W 33                | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 890                                  | 18                  | no              | 4000             |                                  | 26                    |                 | Krause            |
| 240               | MBMG71          | Teton  | 22N Q3W 25 B4B            | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 400                                  | 14.6                | no              | 3935             |                                  | 6                     |                 | Andrews           |
| 241               | MBMG72          | Teton  | 22N Q3W 25 B4B            | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 400                                  | 17                  | no              | 3935             |                                  | 6                     |                 | Chandler          |
| 242               | MBMG73          | Teton  | 22N Q3W 35 B8B            | 76 Well                         |  | Domestic use                                 | Domestic use                                 | 1210                                 | 12                  | no              | 3820             |                                  | 18                    |                 | Quinn             |

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>number | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source       | Flow or yield<br>E-estimated<br>M <sup>3</sup> measured | Site description                   | Specific<br>conductivity<br>at °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|-----------------|--------------|---------------------------|---------------------------------|--------------|---|------------------------------------|-----------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 241         | MBMG65          | Teton        | 22N 02W 13 R8B            | 76                              | Well         |   | Domestic use                       | 590                               | 16                   | no              | 3810              | 7                                 | 20                     |                 | Hudley       |
| 242         | MBMG72          | Teton        | 22N 02W 13 R8B            | 76                              | Well         |   | Domestic use                       | 1210                              | 12                   | no              | 3860              | 14                                |                        |                 | Sungham      |
| 243         | MBMG64          | Teton        | 22N 01W 11 CDD            | 76                              | Well         |   | Domestic use                       | 590                               | 15                   | no              | 3730              | 1                                 | 20                     |                 | Hudley       |
| 244         | MBMG73          | Teton        | 22N 01W 36 D8C            | 76                              | Well         |   | Domestic use                       | 450                               | 14                   | no              | 3720              | 21                                |                        |                 | Smith        |
| 245         | MBMG78          | Teton        | 23N 01E 21 AAB            | 76                              | Creek        | 0.1 cfs   | Lake Creek, silted line banks      | 9800                              | 27                   | no              | 3720              |                                   |                        |                 |              |
| 246         | MBMG77          | Teton        | 23N 01E 10 D0B            | 78                              | Reservoir    |   | Edges of reservoir lined with silt | 6520                              | 21                   | no              | 3760              |                                   |                        |                 | Dahman       |
| 247         | 76M0261         | Cascade      | 22N 02E 07 BCCB           | 04 15                           | 76 Well      |   | Gettel Jones test well             | 6340                              | 6                    | yes             | 3760              | 9                                 | 27                     | 112DIFT         | Jones        |
| 248         | MBMG66          | Chouteau     | 24N 08E 03 BCC            | 76                              | Well         |   | Stock use                          | 4910                              | 6                    | no              | 3020              |                                   | 86                     |                 | Crag         |
| 249         | MBMG96          | Chouteau     | 24N 08E 03 BCC            | 76                              | Spring       |   | Stock use                          | 870                               | 16                   | no              | 2940              |                                   |                        |                 |              |
| 250         | MBMG126         | Chouteau     | 23N 18E 13 CDDB           | 78                              | Well         | 2 gpm   | Domestic use except for drinking   | 3690                              | 12                   | no              |                   |                                   |                        |                 |              |
| 251         | MBMG166         | Chouteau     | 23N 13E 30 CCCC           | 76                              | Well         | 2 gpm   | Domestic and stock use             | 2270                              | 11                   | no              | 3000              |                                   | 86                     |                 | Cook         |
| 252         | 75M1762         | Chouteau     | 21N 11E 06 B              | 07 18                           | 75 Well      |   | Unused domestic well               | 5679                              | 15                   | yes             | 3200              | 4                                 | 25                     | 211CLRD         | Brewer, W    |
| 253         | 76M0224         | Chouteau     | 21N 11E 06 B8CC           | 04 07                           | 76 Well      |   | Unused                             | 7354                              | 8                    | yes             | 3240              | 3                                 | 290                    |                 | Brewer, W    |
| 254         | 76M0227         | Chouteau     | 21N 11E 01 D8DD           | 04 07                           | 76 Well      |   | Unused, Gasline test well          | 3368                              | 15                   | yes             |                   |                                   |                        |                 |              |
| 255         | 76M0222         | Chouteau     | 22N 08E 04 D0B8           | 04 06                           | 76 Well      |   | Davis test well                    | 34620                             | 8                    | yes             | 3310              | 13                                | 112TILL                |                 |              |
| 256         | 72M0636         | Chouteau     | 22N 08E 09 A              | 08 20                           | 72 Well      |   | Davis test well 21                 | 317000                            | 16.4                 | yes             |                   |                                   |                        |                 |              |
| 257         | 76M0221         | Chouteau     | 22N 08E 26 AACC           | 04 04                           | 76 Well      | 0.2 cfs   | Keller test well                   | 3048                              | 13                   | yes             | 3300              |                                   |                        | 112TILL         |              |
| 258         | 76M0220         | Chouteau     | 22N 08E 26 AACC           | 04 08                           | 76 Well      |   | Keller test well                   | 40170                             | 18                   | yes             | 3130              |                                   | 26                     | 112TILL         | Brewer, W    |
| 259         | 76M0226         | Chouteau     | 22N 11E 30 D0B8           | 04 07                           | 76 Well      |   | Railroad well                      | 4706                              | 22.5                 | yes             | 3200              |                                   |                        | 211CLRD         | Brewer, W    |
| 260         | 75M1761         | Chouteau     | 22N 11E 31 A              | 07 18                           | 75 Reservoir |   | Brewer Reservoir                   |                                   |                      | yes             |                   |                                   |                        |                 |              |
| 261         | 76M0226         | Chouteau     | 22N 11E 31 ADAC           | 04 07                           | 78 Reservoir |   | Brewer Reservoir                   | 9563                              | 16                   | yes             | 3180              |                                   |                        |                 | Brewer, W    |
| 262         | 76M1612         | Chouteau     | 22N 13E 27 CDDC           | 01 15                           | 77 Well      |   | Domestic and stock use             | 4346                              | 12                   | yes             | 3060              | 22                                | 70                     | 211EGLE         | Clark, D     |
| 263         | 76M1236         | Fergus       | 18N 13E 25 DDD            | 09 21                           | 76 Spring    |   | Municipal supply                   | 872                               | 11                   | yes             |                   |                                   |                        | 110TRRC         |              |
| 264         | 72M0063         | Fergus       | 18N 13E 22 BAC            | 06 11                           | 72 Well      | 25 gpm (E)  | Domestic use                       | 838                               |                      | yes             | 2400              |                                   |                        | 221SWFT         | Playlar, T   |
| 265         | 76M0229         | Fergus       | 18N 13E 28 BCAA           | 04 07                           | 78 Well      |   | Brinkman test well D10 62 74       | 7486                              | 5                    | yes             |                   | 2                                 | 13                     | 110TRRC         | Brinkman     |
| 266         | 76M0228         | Fergus       | 18N 13E 28 BABB           | 04 10                           | 76 Well      |   | Unused, Brinkman test well         | 1877                              | 8                    | yes             |                   | 6                                 | 33                     | 110TRRC         | Brinkman     |
| 267         | 76M0228         | Fergus       | 18N 13E 29 BCCC           | 04 07                           | 76 Well      |   | Brinkman test well D15 67 74       | 2060                              | 10                   | yes             | 3250              |                                   | 33                     | 110TRRC         | Brinkman     |
| 268         | 76M0223         | Chouteau     | 23N 08E 22 CCAC           | 04 06                           | 78 Well      | 0.2 gpm (E)   | Harold test well, F140 H18 70      | 24060                             | 9                    | yes             | 2970              |                                   | 27                     | 110ALVM         | Harold       |
| 269         | 76M1602         | Chouteau     | 24N 06E 10 BCCA           | 07 14                           | 77 Well      |   | Harold test well, F140 H18 70      | 1606                              | 10                   | yes             | 2970              |                                   | 27                     | 110ALVM         | Harold       |
| 270         | 76M1242         | Judith Basin | 16N 13E 01 D0B0           | 06 21                           | 76 Well      |   | Holzer test well HB 9 D 66         | 13180                             | 15                   | yes             |                   |                                   | 28                     | 211CLRD         | Holzer       |

## GREAT FALLS 1' x 2' Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref.<br>no. | Field<br>number | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>E=estimated<br>M=measured | Site description           | Specific<br>conductivity<br>at 25 C | Field<br>temp<br>C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name |
|--------------------|-----------------|--------------|---------------------------|---------------------------------|--------|--|----------------------------|-------------------------------------|--------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|--------------|
| 271                | 76M0235         | Judith Basin | 16N 14E 07 8BDA           | 04 09 76                        | Well   |  | Moder test well D56 U84 75 | 8951                                | 8                  | yes             |                 |                                 | 23                   | 110CLVM         | Holzer       |
| 272                | 76M1241         | Judith Basin | 16N 14E 07 8DD8           | 09 21 76                        | Well   |  | Holzer test well HB 110 55 | 13570                               | 15                 | yes             | 3800            | 8                               | 26                   | 211CLHD         | Holzer       |
| 273                | MBMG32          | Judith Basin | 17N 13E 28                | 76                              | Well   |  | Domestic use               | 1570                                | 12                 | no              | 3800            | 2000                            | 2000                 | 2000            | Smith David  |
| 274                | MBMG33          | Judith Basin | 17N 13E 28                | 76                              | Well   |  | Stock use                  | 1430                                | 11.5               | no              | 3800            |                                 | 131                  |                 | Smith George |
| 275                | not on map      |              |                           |                                 |        |  |                            |                                     |                    |                 |                 |                                 |                      |                 |              |
| 276                | MBM684          | Fergus       | 19N 13E 12 CD             | 76                              | Well   |  | Domestic use               | 810                                 | 17                 | no              |                 |                                 |                      |                 | flowing      |



## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potass-<br>ium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|-----------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 57                 | 25N 06E 35 DCCA           | 01 14 77                        | Well      | 32.2            | 22.8                   | 875            | 5.5                   | .09          | .08                    | 5.8                           | 741                                     |                                      | 26               | 1346                          |
| 60                 | 24N 06E 28 DCCD           | 01 1 77                         | Well      | 464             | 154                    | 232            | 34.8                  | 3.8          | .08                    | 9.8                           | 278                                     |                                      | 134              | 1613                          |
| 78                 | 24N 08E 28 DCAA           | 01 16 77                        | Well      | 207             | 108                    | 253            | 34.4                  | .09          | .23                    | 11.8                          | 620                                     |                                      | 94               | 1164                          |
| 102                | 23N 11E 24 CDDA           | 01 16 77                        | Well      | 277             | 164                    | 548            | 9.9                   | 2.17         | .51                    | 21.2                          | 698                                     |                                      | 46               | 1875                          |
| 107                | 23N 12E 02 CDDA           | 01 15 77                        | Well      | 102             | 116                    | 1570           | 7.5                   | .03          | .06                    | 12.8                          | 1533                                    |                                      | 198              | 2442                          |
| 108                | 24N 12E 22 AAAD           | 01 15 77                        | Well      | 19.4            | 16                     | 885            | 3.3                   | .03          | .01                    | 7.5                           | 702                                     | 10.1                                 | 146              | 1174                          |
| 109                | 26N 12E 27 ABCE           | 01 15 77                        | Well      | 6.1             | 2.1                    | 825            | 2.4                   | .01          | .01                    | 8.6                           | 1041                                    | 10.6                                 | 116              | 932                           |
| 124                | 22N 11E 15 BCCB           | 01 15 77                        | Well      | 214             | 65                     | 442            | 6.1                   | 3.33         | .42                    | 18.2                          | 448                                     |                                      | 26               | 1305                          |
| 135                | 21N 07E 13 BAAA           | 02 18 77                        | Spring    | 59              | 41                     | 28             | 3.4                   | .01          | .01                    | 19.6                          | 349                                     | 1.0                                  | 4.2              | 38.9                          |
| 149                | 21N 13E 07 BBBC           | 01 15 77                        | Well      | 394             | 186                    | 339            | 9.3                   | .23          | .11                    | 11.6                          | 551                                     |                                      | 83               | 1840                          |
| 156                | 19N 13E 28 AAA            | 09 21 76                        | Well      | 64.5            | 123                    | 750            | 2.9                   | .22          | .03                    | 10.8                          | 563                                     | 3.8                                  | 90               | 1808                          |
| 167                | 18N 12E 29 BCB            | 09 21 76                        | Well      | 52.5            | 79.5                   | 125            | 1.7                   | .16          | .01                    | 15.8                          | 455                                     |                                      | 7.5              | 276.5                         |
| 187                | 18N 14E 07 B0AA           | 06 21 76                        | Well      | 154             | 258                    | 346            | 13.6                  | .11          | .13                    | 10.3                          | 383                                     |                                      | 49               | 1809                          |
| 218                | 23N 01W 03 AAC            | 01 17 76                        | Well      | 390             | 195                    | 4500           | 28                    | .14          | .10                    | 10.6                          | 989                                     |                                      | 200              | 16623                         |
| 224                | 24N 02W 32 ADC            | 12 06 76                        | Well      | 525             | 560                    | 480            | 23.9                  | .11          | .04                    | 7.1                           | 386                                     |                                      | 199              | 3341                          |
| 247                | 22N 02E 07 BCCB           | 04 15 76                        | Well      | 426             | 582                    | 340            | 6.7                   | .40          | 13.0                   | 62.1                          |   |                                      | 178              | 4980                          |
| 252                | 21N 11E 06 B              | 07 18 75                        | Well      | 430             | 850                    | 898            | 35.4                  | .16          | .28                    | 16.5                          | 492                                     |                                      | 14.4             | 4758                          |
| 253                | 21N 11E 06 BBCC           | 04 07 76                        | Well      | 90              | 712                    | 880            | 25                    | .10          | .28                    | 1.0                           | 184                                     |                                      | 81               | 4672                          |
| 254                | 21N 11E 01 DBDD           | 04 07 76                        | Well      | 214             | 154                    | 420            | 35                    | .26          | .10                    | 17.2                          | 507                                     |                                      | 10.0             | 1634                          |
| 255                | 22N 08E 04 DDBB           | 04 06 76                        | Well      | 424             | 6700                   | 5350           | 45                    | .21          | .32                    | 8.8                           | 539                                     |                                      | 268              | 36735                         |
| 256                | 22N 08E 09A               | 06 20 72                        | Well      | 446             | 6295                   | 5600           | 45.0                  | 1.4          | 1.1                    | 16                            | 546                                     |                                      |                  | 36730                         |
| 257                | 22N 08E 25 AACC           | 04 06 76                        | Well      | 410             | 116                    | 220            | 8.7                   | .15          | 1.35                   | 18.8                          | 331                                     |                                      | 35               | 1618                          |
| 258                | 22N 08E 34 AAB6           | 04 06 76                        | Well      | 460             | 4160                   | 9800           | 100                   | .19          | 1.57                   | 6.9                           | 1452                                    |                                      | 128              | 36010                         |
| 259                | 22N 11E 30 DDBB           | 04 07 76                        | Well      | 77              | 114                    | 700            | 30                    | .70          | .13                    | 24.1                          | 718                                     |                                      | 13               | 1576                          |
| 260                | 22N 11E 31A               | 07 18 75                        | Reservoir | 235             | 326                    | 530            | 24.4                  | .08          | .06                    | 3.0                           | 35                                      | 13.4                                 | 203.4            | 2291                          |
| 261                | 22N 11E 31 ADAC           | 04 07 76                        | Reservoir | 436             | 732                    | 1120           | 35                    | .19          | .03                    | 1.0                           | 378                                     |                                      | 243              | 4913                          |
| 262                | 22N 13E 27 CDDC           | 01 16 77                        | Well      | 81              | 56.5                   | 1010           | 5.5                   | .18          | .02                    | 9.7                           | 1000                                    |                                      | 48               | 1587                          |
| 283                | 18N 13E 25 DDD            | 09 21 76                        | Spring    | 40.2            | 44.8                   | 22.8           | 1.4                   | .03          | <.01                   | 10.6                          | 294                                     |                                      | 4                | 45.3                          |
| 264                | 19N 13E 22 BAC            | 05 11 72                        | Well      | 44              | 16                     | 73             | 6.5                   |              | .01                    | 12.2                          | 255                                     | 14                                   | 3.5              | 105                           |
| 265                | 19N 13E 29 BCAA           | 04 07 76                        | Well      | 135             | 380                    | 1400           | 1.7                   | .37          | .03                    | 8.3                           | 817                                     |                                      | 120              | 2854                          |
| 266                | 19N 13E 29 BABB           | 04 10 76                        | Well      | 91              | 107                    | 150            | 4.                    | .06          | <.01                   | 11.2                          | 383                                     |                                      | 33               | 564.5                         |
| 267                | 19N 13E 29 BCCC           | 04 07 76                        | Well      | 56.3            | 79.5                   | 160            | 3.2                   | .12          | <.01                   | 12.2                          | 498                                     |                                      | 8.0              | 321.9                         |
| 268                | 23N 08E 22 DCAC           | 04 06 76                        | Well      | 396             | 3000                   | 4100           | 50                    | .13          | .39                    | 8.2                           | 1182                                    |                                      | 266              | 19350                         |
| 269                | 24N 08E 10 B0BA           | 01 14 77                        | Well      | 87.5            | 94                     | 149            | 3.1                   | .02          | .06                    | 4.6                           | 374                                     |                                      | 32               | 600                           |
| 270                | 18N 13E 01 DDBD           | 06 21 76                        | Well      | 415             | 1420                   | 1950           | 23.2                  | .10          | .03                    | 11.4                          | 600                                     |                                      | 180              | 9516                          |
| 271                | 16N 14E 07 BBDA           | 04 09 76                        | Well      | 474             | 590                    | 1100           | 6.6                   | .18          | .30                    | 8.4                           | 385                                     |                                      | 73               | 5361                          |
| 272                | 16N 14E 07 BDBB           | 09 21 76                        | Well      | 294             | 1885                   | 1730           | 30                    | .84          | .41                    | 9.3                           | 827                                     |                                      | 180              | 11031                         |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated.

## of Selected Waters

| Meo<br>ref.<br>no. | Nitrate<br>(N) | Fluo-<br>ride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Trace<br>elements<br>code | Lab<br>analyzed<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|---------------------------|---------------------------|
| 57                 | .248           | 1.0                  | 8.16      | 9                    | 3749  | 2681                           | 178                                       | 908   | 28.5                          | MBMG                 | 185                    | 211CLRD                   | Yes 78M1601               |
| 60                 | .368           | 1.7                  | 7.51      | 12                   | 3478  | 2988                           | 1790                                      | 229   | 2.4                           | MBMG                 | 1618                   | 217KDTN                   | Yes 78M1603               |
| 78                 | .023           | 3.0                  | 7.38      | 15                   | 2862  | 2253                           | 1260                                      | 509   | 3.1                           | MBMG                 | 2022                   | 221SWFT                   | Yes 78M1618               |
| 103                | .029           | .5                   | 7.49      | 12                   | 3890  | 3288                           | 1370                                      | 572   | 6.5                           | MBMG                 | 138                    | 211CLRD                   | Yes 78M1617               |
| 107                | 6.777          | .4                   | 7.83      | 8                    | 6768  | 5209                           | 728                                       | 1250  | 25.3                          | MBMG                 | 184                    | 211EGLE                   | Yes 78M1813               |
| 108                | .032           | 1.2                  | 8.45      | 20                   | 3737  | 2608                           | 114                                       | 593   | 36.0                          | MBMG                 | 481                    | 211EGLE                   | Yes 78M1614               |
| 109                | .156           | 1.8                  | 8.43      | 14                   | 3722  | 2517                           | 24  | 871   | 82.4                          | MBMG                 | 302                    | 211EGLE                   | Yes 78M1615               |
| 124                | .108           | .9                   | 7.70      | 8                    | 2909  | 2302                           | 802                                       | 367   | 6.8                           | MBMG                 | 70                     | 211CLRD                   | Yes 78M1609               |
| 135                | 10.844         | .5                   | 8.33      | 5.2                  | 877   | 379                            | 316                                       | 288   | 0.7                           | MBMG                 |                        | 211MSBY                   | No 78M1642                |
| 149                | .156           | .3                   | 7.48      | 7                    | 3671  | 3135                           | 1750                                      | 452   | 3.5                           | MBMG                 | 17                     | 112DRFT                   | Yes 78M1610               |
| 156                | .565           | 8.1                  | 8.32      | 14                   | 3910  | 2937                           | 667                                       | 468   | 12.5                          | MBMG                 | 24                     | 110TRRC                   | Yes 78M1248               |
| 157                | 12.990         | 2.2                  | 7.87      | 18                   | 1270  | 797                            | 458                                       | 373   | 2.5                           | MBMG                 | 28                     | 110TRRC                   | Yes 78M1247               |
| 187                | .054           | .8                   | 7.22      | 15                   | 3475  | 2839                           | 1470                                      | 314   | 3.9                           | MBMG                 | 28                     | 211CLRD                   | Yes 78M1240               |
| 218                | 82.803         | .9                   | 7.70      | 12                   | 21700                                       | 24230                          | 9100                                      | 729   | 20.5                          | MBMG                 | 97                     | 210CLRD                   | Yes 78M1618               |
| 224                | 158.14         | .2                   | 7.53      | 7                    | 6495  | 5475                           | 3670                                      | 300   | 3.5                           | MBMG                 | 90                     | 211CLRD                   | Yes 78M1477               |
| 247                | 10.392         | .3                   | 4.08      | 8                    | 6340  |                                | 3500                                      |   | 2.5                           | MBMG                 | 27                     | 112DRFT                   | Yes 78M0251               |
| 252                | 237.300        | .2                   | 7.98      | 15.1                 | 9579  | 7281                           | 4570                                      | 492   | 1.1                           | MBMG                 | 25                     | 211CLRD                   | Yes 78M1782               |
| 253                | 25.189         | .1                   | 7.75      | 8                    | 7354  | 6478                           | 3150                                      | 151   | 8.8                           | MBMG                 | 290                    |                           | Yes 78M0224               |
| 254                | .228           | .3                   | 7.81      | 15                   | 3368  | 2738                           | 1170                                      | 418   | 5.3                           | MBMG                 |                        |                           | Yes 78M0227               |
| 255                | 255.730        | .8                   | 7.27      | 8                    | 34630                                       | 50050                          | 28600                                     | 442   | 13.8                          | MBMG                 | 13                     | 112TILL                   | Yes 78M0222               |
| 258                | 918            | .9                   | 7.45      | 18.4                 | 317000                                      | 50880                          | 447                                       | 27100                                       | 14.8                          | MBMG                 |                        |                           | Yes 72M0636               |
| 257                | .188           | .4                   | 7.80      | 13                   | 3048  | 2592                           | 1500                                      | 271   | 2.6                           | MBMG                 |                        | 112TILL                   | Yes 78M0221               |
| 258                | 297.802        | .5                   | 7.89      | 18                   | 40120                                       | 51780                          | 18300                                     | 1190  | 31.5                          | MBMG                 |                        | 112TILL                   | Yes 78M0220               |
| 259                | 4.809          | .5                   | 7.73      | 18                   | 3927  | 2897                           | 661                                       | 589   | 11.8                          | MBMG                 | 25                     |                           | Yes 78M0228               |
| 260                | 106.672        | .2                   | 8.82      | 22.5                 | 4705  | 3751                           | 1930                                      | 49  | 1.9                           | MBMG                 | 1                      | 211CLRD                   | Yes 78M1781               |
| 261                | 205.126        | .1                   | 7.66      | 15                   | 9563  | 7871                           | 4100                                      | 308   | 7.8                           | MBMG                 | 1                      |                           | Yes 78M0225               |
| 262                | .029           | 1.1                  | 7.87      | 12                   | 4345  | 3272                           | 385                                       | 820   | 22.4                          | MBMG                 | 70                     | 211EGLE                   | Yes 78M1612               |
| 263                | 18.491         | 1.5                  | 7.92      | 11                   | 872   | 338                            | 284                                       | 241   | 0.8                           | MBMG                 |                        | 110TRRC                   | Yes 78M1238               |
| 264                | .2             | .8                   | 8.41      |                      | 638   | 400                            | 175                                       | 258   | 2.4                           | USGS                 |                        | 221SWFT                   | No 72M0383                |
| 265                | 2.824          | 2.5                  | 7.96      | 5                    | 7488  | 6309                           | 1900                                      | 670   | 14.0                          | MBMG                 | 13                     | 110TRRC                   | Yes 78M0229               |
| 266                | 9.443          | 2                    | 8.10      | 8                    | 1677  | 1161                           | 688                                       | 314   | 2.8                           | MBMG                 | 33                     | 110TRRC                   | Yes 78M0238               |
| 267                | 12.719         | 2                    | 8.15      | 10                   | 1462  | 900                            | 464                                       | 408   | 3.2                           | MBMG                 | 33                     | 110TRRC                   | Yes 78M0228               |
| 268                | 133.852        | .8                   | 7.88      | 10                   | 24060                                       | 27890                          | 13300                                     | 989   | 15.4                          | MBMG                 | 33                     | 112TILL                   | Yes 78M0223               |
| 269                | .878           | .4                   | 8.12      | 9                    | 1606  | 1056                           | 589                                       | 307   | 2.7                           | MBMG                 | 27                     | 110ALVM                   | Yes 78M1602               |
| 270                | 97.593         | .8                   | 7.74      | 15                   | 13180                                       | 13910                          | 6880                                      | 492   | 10.2                          | MBMG                 | 28                     | 211CLRD                   | Yes 78M1242               |
| 271                | 3.219          | .8                   | 7.54      | 9                    | 8051  | 7809                           | 3810                                      | 315   | 8.0                           | MBMG                 | 23                     | 110CLVM                   | Yes 78M0235               |
| 272                | <.023          | .9                   | 7.17      | 15                   | 13830                                       | 15430                          | 8410                                      | 514   | 8.2                           | MBMG                 | 28                     | 211CLRD                   | Yes 78M1241               |

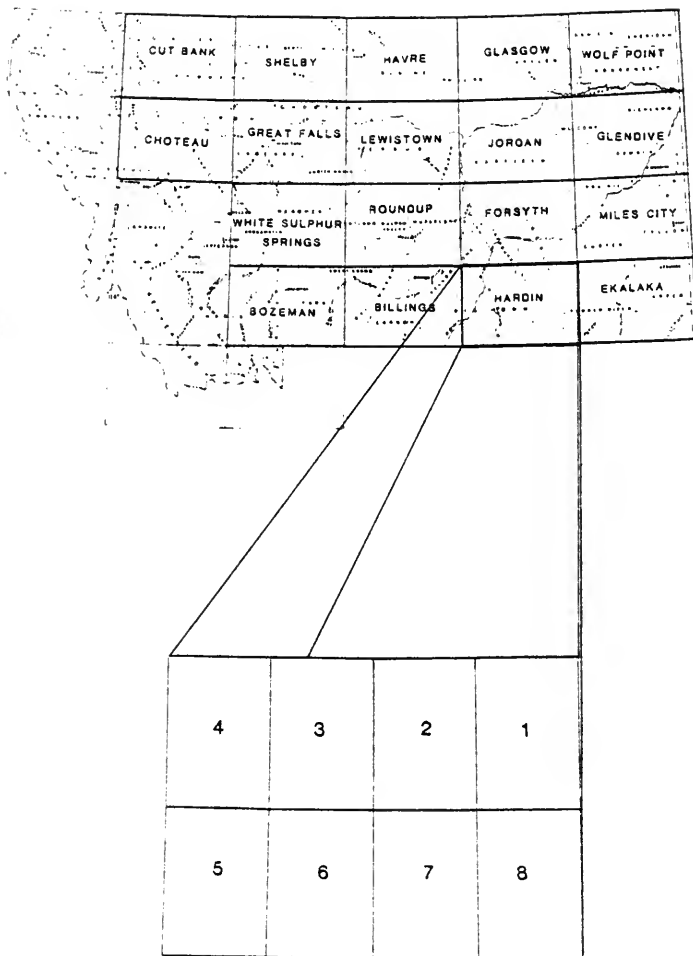
## GREAT FALLS 1" x 2" Sheet

## Trace Elements Analysis Sheet

| Map<br>ref. | Location<br>T R Sec Tract | Alu.<br>minum<br>mg/l | Ant.<br>mony<br>mg/l | Ar.<br>Beryl-<br>lum<br>mg/l | Bor-<br>on<br>mg/l | Cad-<br>mium<br>mg/l | Cop-<br>per<br>mg/l | Lead<br>mg/l | Lith-<br>ium<br>mg/l | Mer-<br>cury<br>mg/l | Nickel<br>mg/l | Phosphate<br>(Total)<br>mg/l | Selen-<br>ium<br>mg/l | Silver<br>mg/l | Stron-<br>tium<br>mg/l | Tin<br>mg/l | Zinc<br>mg/l | Lab<br>number |
|-------------|---------------------------|-----------------------|----------------------|------------------------------|--------------------|----------------------|---------------------|--------------|----------------------|----------------------|----------------|------------------------------|-----------------------|----------------|------------------------|-------------|--------------|---------------|
| 57          | 25N 06E 35 DCCA           | < .05                 | < 2                  | < 2.0                        | 1.0                | < .01                | < .01               | < .06        | .20                  | < 3                  | < .01          | .191                         | < 2.0                 | 1.04           | < .05                  | .05         | 76M1601      |               |
| 68          | 24N 08E 26 DCCA           | < .06                 | < 2                  | < 2.0                        | .18                | < .01                | .02                 | < .06        | .53                  | < 3                  | .03            | .026                         | < 2.0                 | 8.60           | .53                    | < .01       | 76M1603      |               |
| 70          | 24N 08E 26 DCCA           | < .06                 | < 2                  | < 2.0                        | .88                | < .01                | < .01               | < .05        | .57                  | < 3                  | .03            | .020                         | < 2.0                 | 7.00           | 1.32                   | < .01       | 76M1616      |               |
| 103         | 23N 11E 24 CDDA           | < .06                 | < 2                  | < 2.0                        | .88                | < .01                | < .01               | < .05        | .26                  | < 3                  | .03            | .065                         | < 2.0                 | 5.45           | .97                    | .04         | 76M1617      |               |
| 107         | 23N 13E 02 CDDA           | < .06                 | < 2                  | < 2.0                        | 2.1                | < .01                | .01                 | < .05        | .46                  | < 3                  | .02            | .072                         | 31.8                  | 3.62           | 1.20                   | 1.59        | 76M1613      |               |
| 108         | 24N 12E 22 AAAD           | < .05                 | < 2                  | < 2.0                        | 1.5                | < .01                | .35                 | < .05        | .15                  | < 3                  | < .01          | .104                         | < 2.0                 | .98            | 1.25                   | 1.25        | 76M1614      |               |
| 124         | 23N 11E 15 ACDB           | < .05                 | < 2                  | < 2.0                        | 2.5                | < .01                | .07                 | < .05        | .14                  | < 3                  | < .01          | .020                         | < 2.0                 | .60            | 1.43                   | .06         | 76M1615      |               |
| 134         | 23N 11E 07 ACDB           | < .05                 | < 2                  | < 2.0                        | .74                | < .01                | .01                 | < .05        | .18                  | < 3                  | .03            | .065                         | < 2.0                 | 2.15           | .85                    | .06         | 76M1609      |               |
| 140         | 21N 13E 07 BBBC           | .46                   | < 2                  | 2.0                          | 2.6                | < .01                | .02                 | .06          | .19                  | < 3                  | .03            | .088                         | < 2.0                 | 4.31           | 1.23                   | .14         | 76M1610      |               |
| 158         | 19N 13E 29 AAA            | .46                   | < 2                  | 2.0                          | 2.6                | < .01                | .01                 | .07          | .13                  | < 3                  | .03            | .027                         | < 2.0                 | 1.61           | .23                    | .01         | 76M1246      |               |
| 167         | 19N 13E 29 BBBC           | .27                   | < 2                  | < 2.0                        | 1.1                | < .01                | .01                 | < .05        | .11                  | < 3                  | .02            | .091                         | 7.6                   | 1.44           | .15                    | .02         | 76M1247      |               |
| 171         | 19N 14E 07 BDAA           | .09                   | < 2                  | < 2.0                        | .93                | < .01                | .01                 | .10          | .15                  | < 3                  | .05            | .170                         | 16.2                  | 1.16           | .94                    | .12         | 76M1240      |               |
| 218         | 23N 01W 03 AAC            | < .06                 | .37                  | < 2.0                        | .43                | < .01                | .03                 | .04          | .05                  | < 3                  | .26            | .065                         | < 2.0                 | 11.6           | .95                    | .06         | 76M1618      |               |
| 224         | 24N 02W 22 ADC            | .06                   | .38                  | < 2.0                        | 1.1                | .01                  | .03                 | .20          | .49                  | < 3                  | .10            | .023                         | 71.0                  | 6.9            | .95                    | 2.00        | 76M1619      |               |
| 247         | 22N 02E 07 BCB            | 18.7                  | .25                  | < 2.0                        | 24                 | .04                  | .03                 | .07          | .19                  | 4.16                 | 3.5            | .153                         | 8.4                   | .23            | .55                    | 7.30        | 76M0251      |               |
| 252         | 21N 11E 08 B              | < .06                 | 2                    | < 2.0                        | .23                | .02                  | .02                 | .02          | .19                  | .07                  | .06            | .026                         | 125                   | 2.51           | .87                    | .03         | 76M1762      |               |
| 253         | 21N 11E 08 BBBC           | < .06                 | 2                    | < 2.0                        | .8                 | .02                  | .02                 | .02          | .16                  | .16                  | < 3            | .06                          | .026                  | 2.86           | .27                    | .01         | 76M0224      |               |
| 254         | 22N 08E 04 DDBB           | 10                    | 2.0                  | < 2.0                        | < 5                | .06                  | .11                 | .11          | .64                  | 4.51                 | < 3            | .46                          | < 2.0                 | 8.0            | 4.12                   | .11         | 76M0227      |               |
| 255         | 22N 08E 04 DDBB           | 2.0                   | < 2                  | < 2.0                        | < 5                | .06                  | .22                 | .13          | 1.3                  | .99                  | < 3            | .43                          | .060                  | 7.7            | .10                    | .10         | 72M0036      |               |
| 268         | 22N 08E 09 A              | < .06                 | < 2                  | < 2.0                        | < 5                | .01                  | .01                 | .02          | .06                  | .07                  | .06            | .026                         | < 2.0                 | 4.03           | .19                    | .02         | 76M0221      |               |
| 267         | 22N 08E 25 AAC            | < .06                 | < 2                  | < 2.0                        | 3                  | .01                  | .01                 | .02          | .06                  | .07                  | .06            | .026                         | 900                   | 12.6           | 3.94                   | .09         | 76M0220      |               |
| 268         | 22N 08E 24 AAB            | 10                    | 2.3                  | < 2.0                        | 1.3                | .09                  | .11                 | .11          | .64                  | 4.51                 | < 3            | .51                          | .065                  | 2.68           | .16                    | .03         | 76M0226      |               |
| 269         | 22N 08E 24 AAB            | .15                   | < 2                  | < 2.0                        | < 5                | .01                  | < .01               | .01          | .07                  | .27                  | < 3            | .03                          | .065                  | 6.3            | .15                    | .01         | 76M0225      |               |
| 269         | 22N 08E 24 AAB            | < .06                 | < 2                  | < 2.0                        | .27                | < .01                | < .01               | .01          | .07                  | .27                  | < 3            | .03                          | .065                  | 6.3            | .15                    | .01         | 76M0225      |               |
| 269         | 22N 08E 24 AAB            | < .06                 | < 2                  | < 2.0                        | < 5                | .02                  | .03                 | .04          | .22                  | .26                  | < 3            | .11                          | .048                  | 6.15           | .85                    | .05         | 76M0225      |               |
| 261         | 22N 11E 31 AAC            | 14                    | 2                    | < 2.0                        | < 5                | .02                  | .03                 | .04          | .22                  | .26                  | < 3            | .11                          | .048                  | 6.15           | .85                    | .05         | 76M0225      |               |
| 262         | 22N 13E 27 CDDC           | < .06                 | < 2                  | < 2.0                        | 2.2                | < .01                | < .01               | < .05        | .21                  | < 3                  | .03            | .023                         | < 2.0                 | 3.27           | .57                    | .06         | 76M1612      |               |
| 263         | 18N 13E 25 DDD            | .06                   | < 2                  | < 2.0                        | < 5                | < .01                | < .01               | < .05        | .05                  | < 3                  | .03            | .039                         | 2.3                   | < .01          | .74                    | .16         | .01          | 76M1258       |
| 264         | 18N 13E 25 DDD            | .06                   | < 2                  | < 2.0                        | < 5                | .01                  | .01                 | .02          | .10                  | .15                  | < 3            | .07                          | 10.8                  | 3.38           | .45                    | .06         | 76M0229      |               |
| 265         | 18N 13E 25 DDD            | .06                   | < 2                  | < 2.0                        | < 5                | .01                  | .01                 | .02          | .10                  | .15                  | < 3            | .07                          | 10.8                  | 3.38           | .45                    | .06         | 76M0229      |               |
| 266         | 18N 13E 25 DDD            | .06                   | < 2                  | < 2.0                        | < 5                | .01                  | .01                 | .02          | .10                  | .15                  | < 3            | .07                          | 10.8                  | 3.38           | .45                    | .06         | 76M0229      |               |
| 266         | 18N 13E 25 DDD            | .06                   | < 2                  | < 2.0                        | < 5                | .01                  | .01                 | .02          | .10                  | .15                  | < 3            | .07                          | 10.8                  | 3.38           | .45                    | .06         | 76M0229      |               |
| 267         | 18N 13E 25 DDD            | .06                   | < 2                  | < 2.0                        | < 5                | .01                  | .01                 | .02          | .10                  | .15                  | < 3            | .07                          | 10.8                  | 3.38           | .45                    | .06         | 76M0229      |               |
| 268         | 23N 08E 22 DCA            | < .06                 | 1.36                 | < 2.0                        | < 5                | .02                  | .03                 | .04          | .22                  | .26                  | < 3            | .11                          | .048                  | 6.15           | .85                    | .05         | 76M0225      |               |
| 268         | 23N 08E 22 DCA            | < .06                 | < 2                  | < 2.0                        | 1.2                | < .01                | .01                 | .02          | .06                  | .07                  | .06            | .026                         | 1800                  | 6.2            | 2.74                   | .06         | 76M0223      |               |
| 270         | 18N 13E 01 BBBC           | .06                   | .30                  | < 2.0                        | 2.8                | .01                  | .03                 | .06          | .34                  | 1.60                 | < 3            | .16                          | .072                  | 7.60           | 8.65                   | 3.18        | .04          | 76M1242       |
| 271         | 18N 13E 01 BBBC           | < .06                 | < 2                  | < 2.0                        | 1.1                | .01                  | .03                 | .16          | .07                  | < 3                  | .11            | .039                         | 94.0                  | 1.72           | .55                    | .15         | 76M0226      |               |
| 272         | 18N 14E 07 BBDA           | .07                   | .30                  | 4.3                          | 2.3                | .03                  | .05                 | .38          | .86                  | < 3                  | .17            | .365                         | 2.0                   | 3.54           | 3.42                   | .06         | 76M1241      |               |



# LOCATION BASE MAP



HARDIN 1° x 2° SHEET

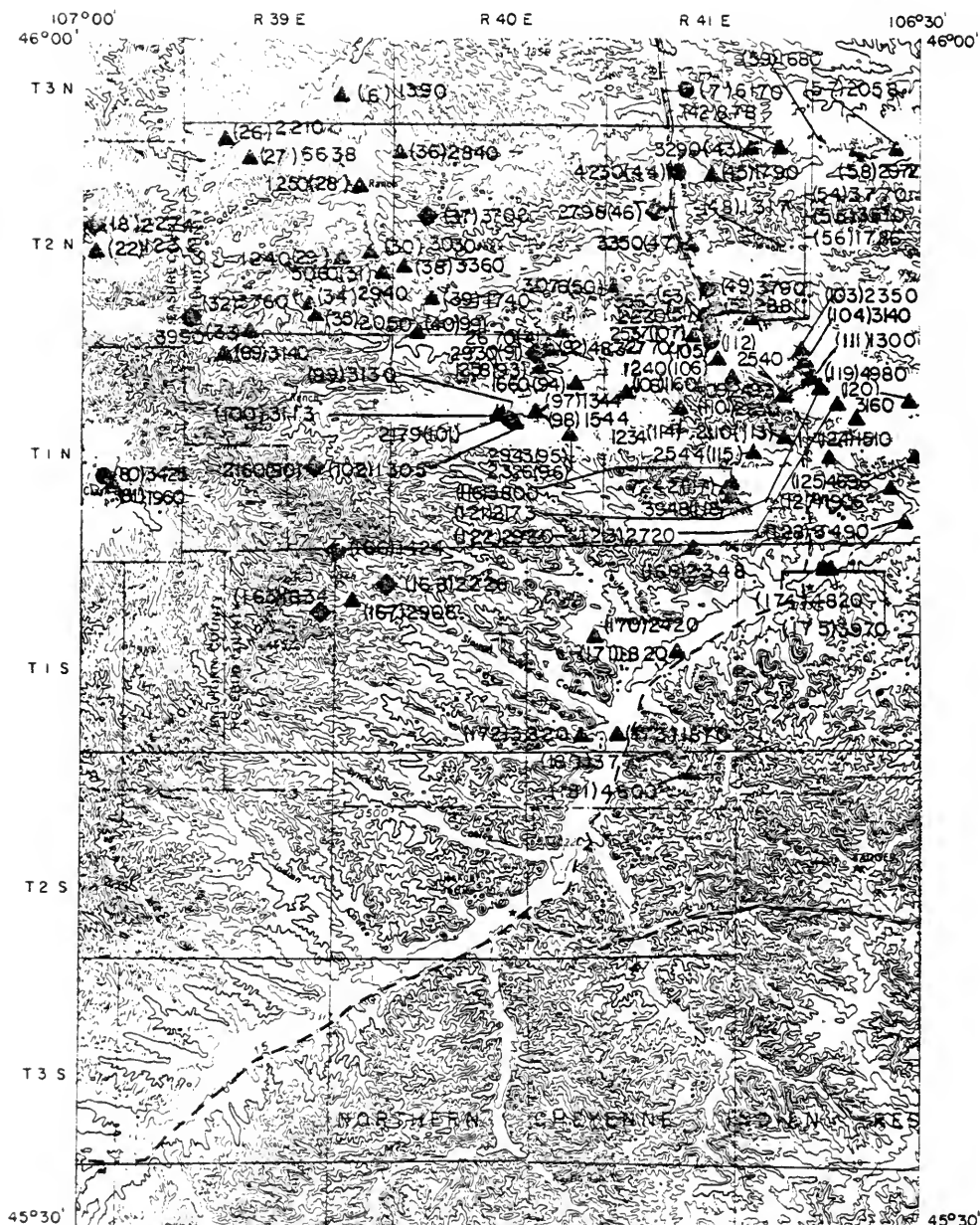


## HARDIN 1



# SPECIFIC CONDUCTANCE SURVEY

HARDIN 2



1: 250,000

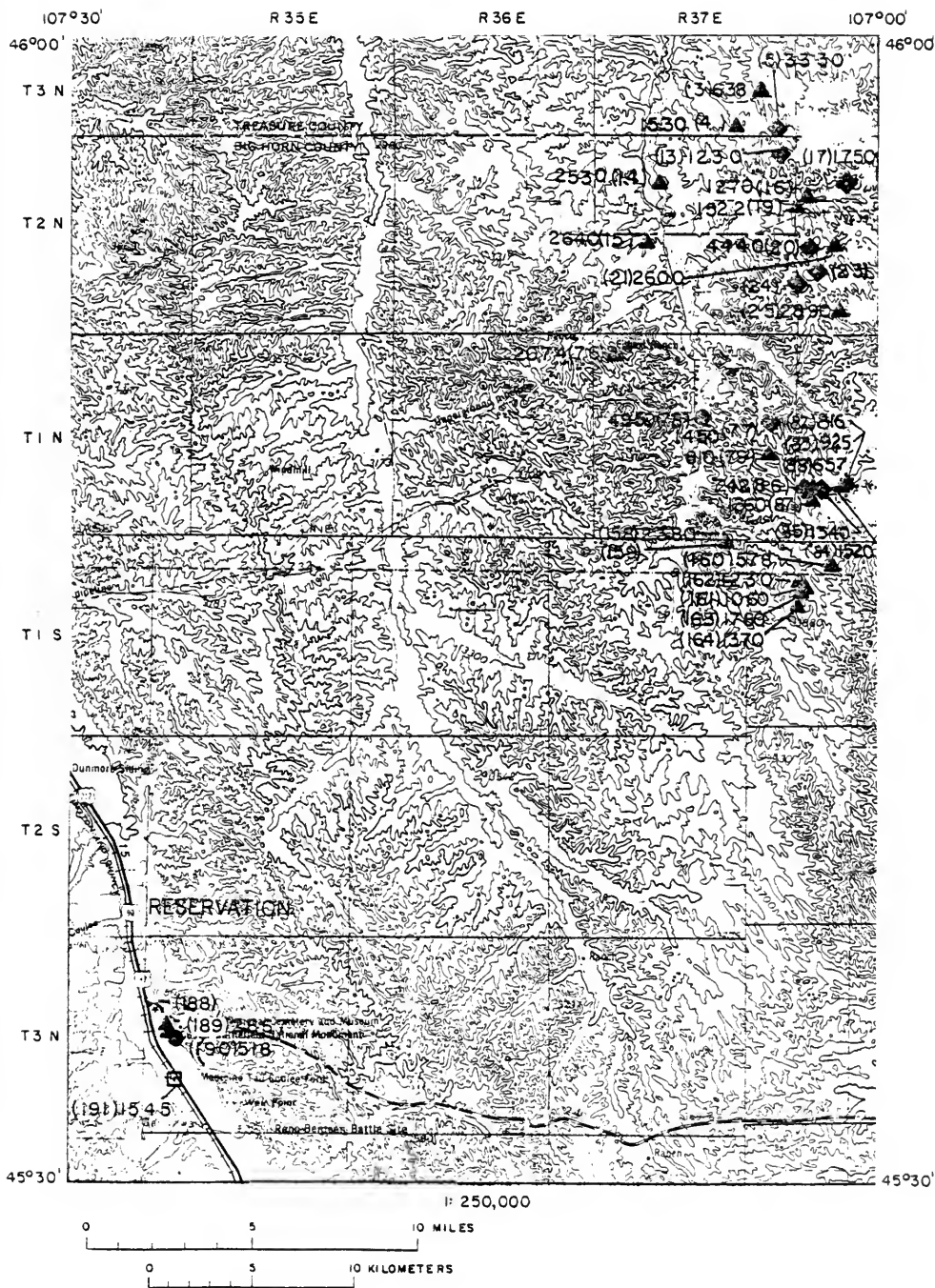
0 5 10 MILES

0 5 10 KILOMETERS

CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

HARDIN 3

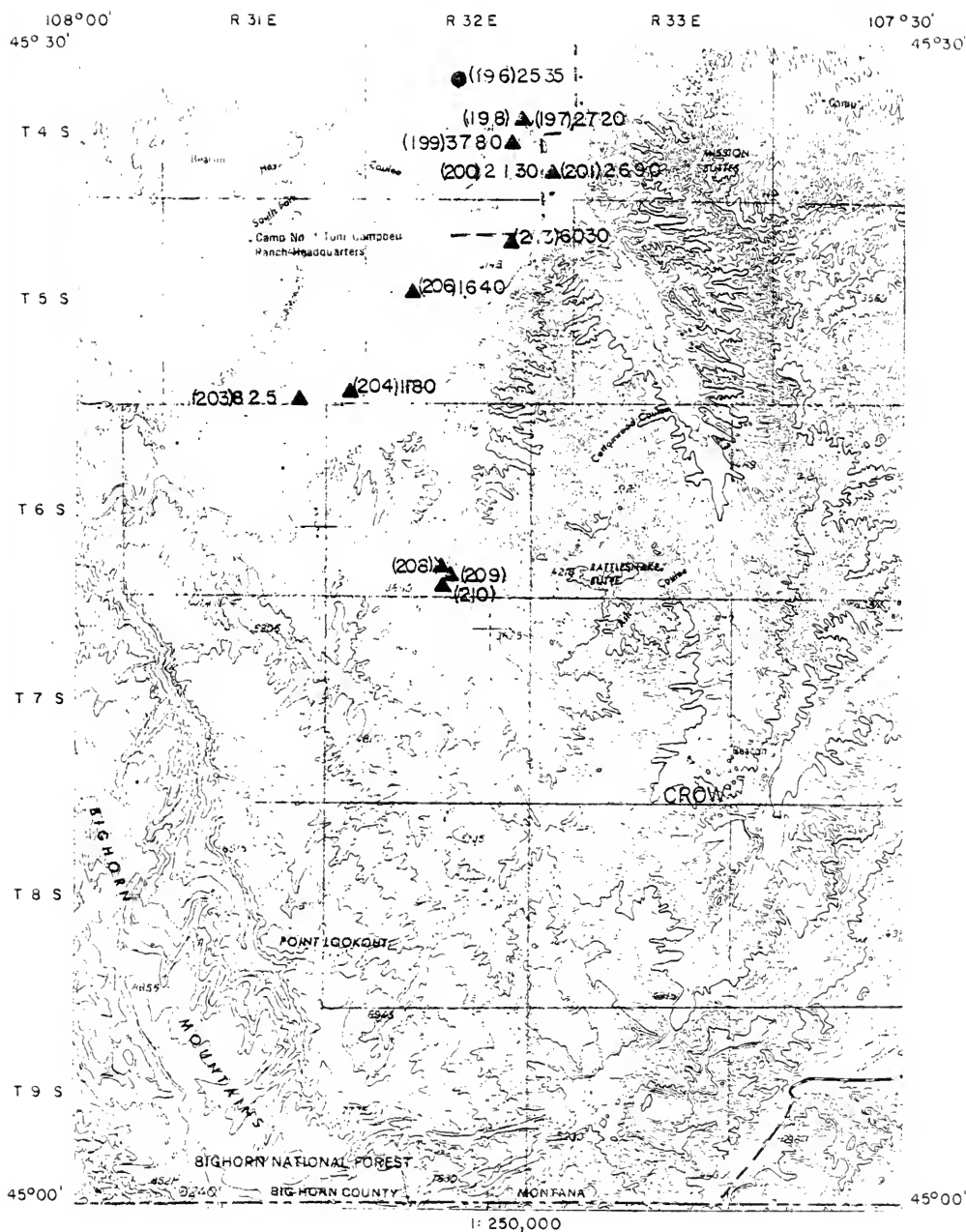


## HARDIN 4



# SPECIFIC CONDUCTANCE SURVEY

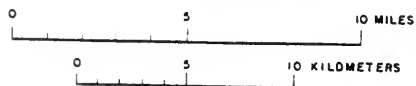
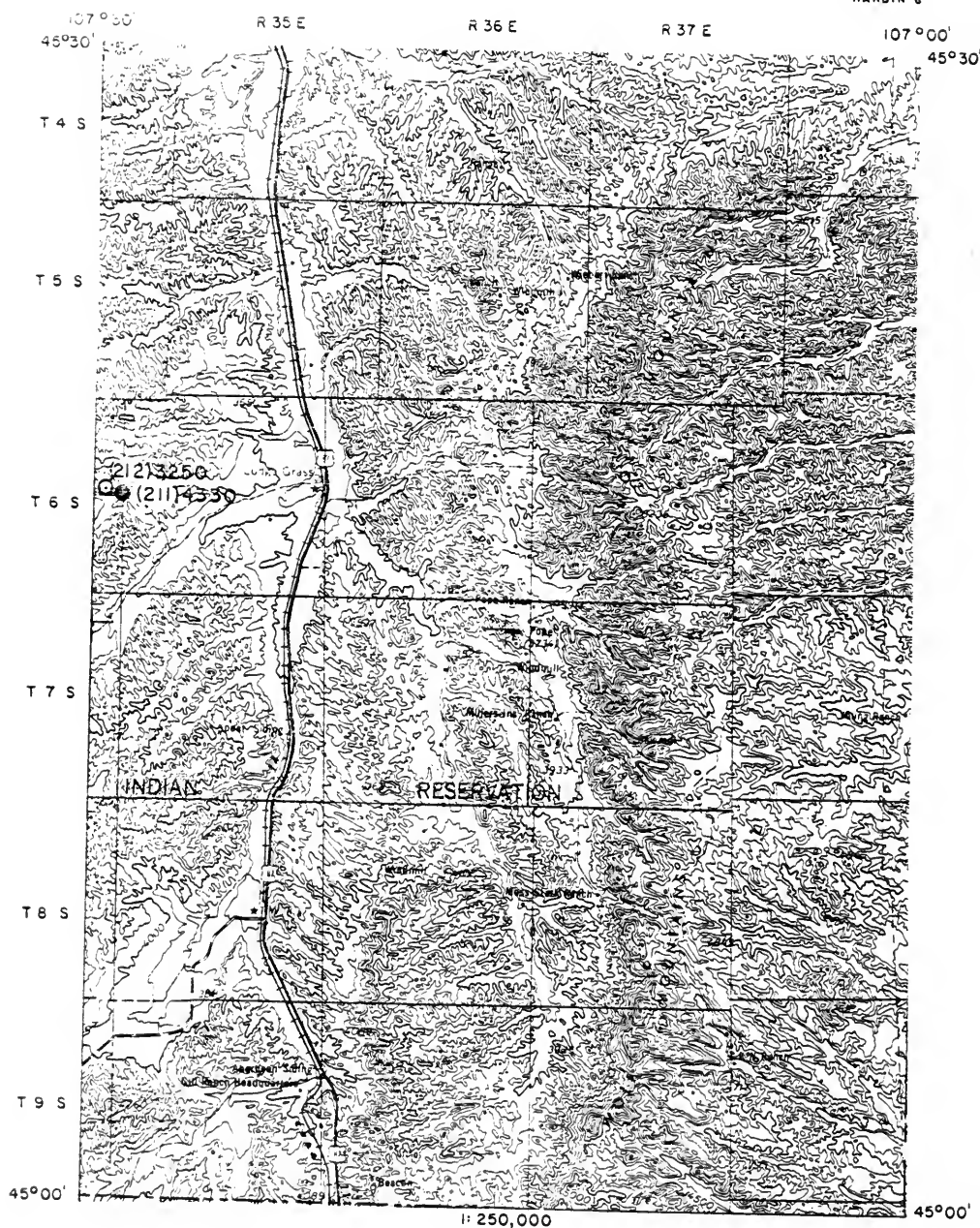
HARLIN 5





# SPECIFIC CONDUCTANCE SURVEY

HARDIN 6

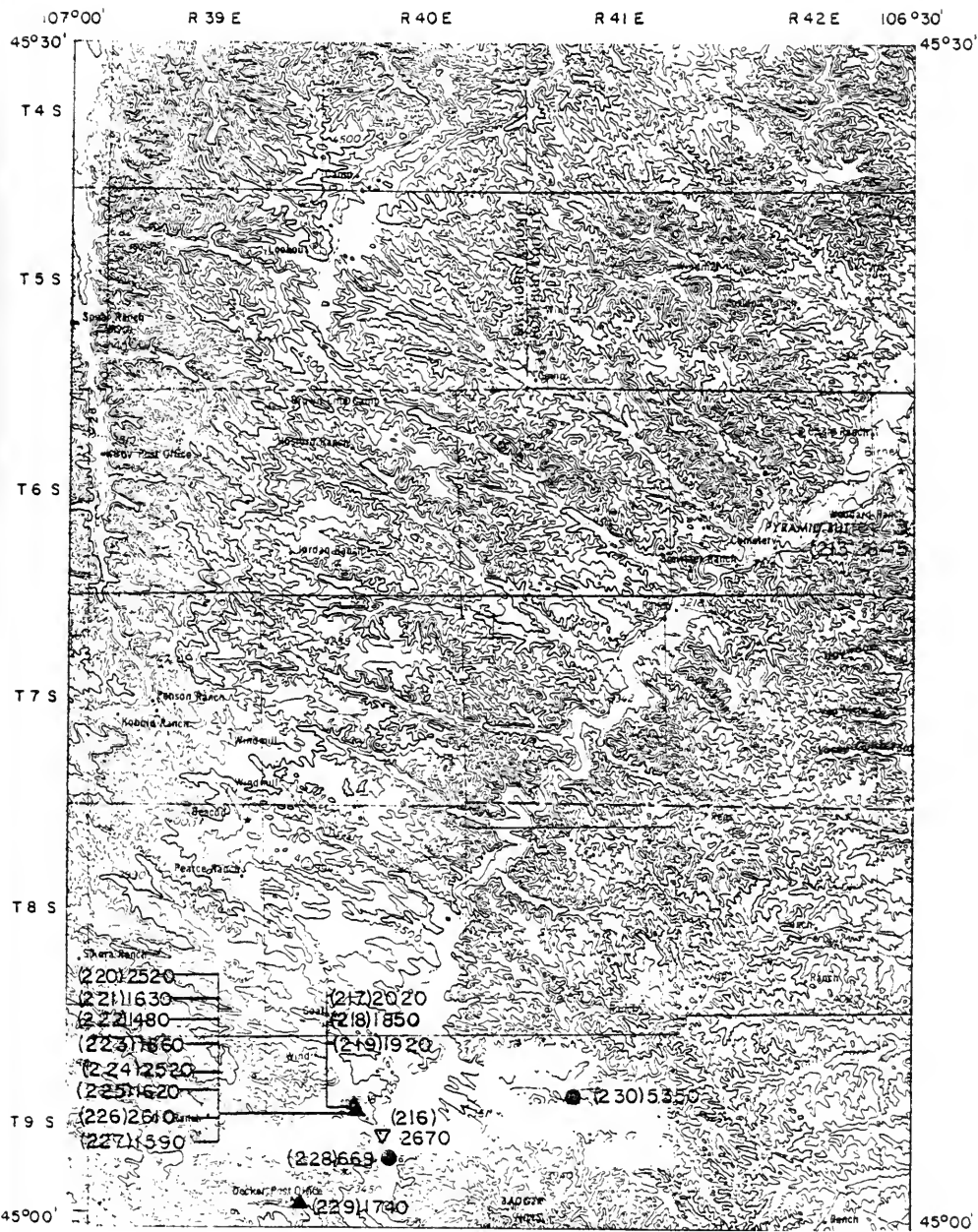


CONTOUR INTERVAL 100 FT



# SPECIFIC CONDUCTANCE SURVEY

HARDIN 7



## HARDIN 8



# HARDIN 1" x 2" Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec. Tract | Collection<br>date<br>Mo Day Yr. | Source | Flow or yield<br>E=estimated<br>M=measured | Site description         | Specific<br>conductivity<br>at 25°C | Field<br>temp.<br>°C | Lab.<br>analysis | Altitude<br>(ft.) | Static<br>water level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name      |
|--------------------|-----------------|----------|----------------------------|----------------------------------|--------|--|--------------------------|-------------------------------------|----------------------|------------------|-------------------|--------------------------------|------------------------|-----------------|-------------------|
| 1                  | W08B            | Big Horn | 02N 33E 36 AC D            | 09 15 76                         | Ditch  | 15 cfs (E)                                 | Legion irrigation return | 690                                 | no                   | no               |                   |                                |                        |                 |                   |
| 2                  | W08B            | Big Horn | 02N 33E 36 AC D            | 09 15 76                         | Ditch  | 15 cfs (E)                                 | Irrigation return        | 810                                 | 12                   | yes              | 3300              |                                |                        |                 | Wilson            |
| 3                  | 74M109          | Treasure | 02N 37E 26 DAC D           | 06 27 73                         | Ditch  | 15 cfs (E)                                 | Domestic and stock use   | 1530                                | 1.2                  | yes              | 3200              |                                |                        | 125TGRV         | Goodert, Clarence |
| 4                  | 73M600          | Treasure | 02N 37E 36 CDB             | 06 25 73                         | Well   |  | Stock use                | 3330                                | 29                   | yes              | 3240              |                                |                        |                 |                   |
| 5                  | 74M0029         | Treasure | 02N 37E 36 CODA            | 09 03 73                         | Spring |  | Stock use                |                                     |                      |                  |                   |                                |                        |                 |                   |
| 6                  | 73M661          | Roadbud  | 02N 38E 36 BAC D           | 07 26 73                         | Well   | 2 gpm (E)                                  | Stock use                | 1390                                | 13.5                 | yes              | 3130              | 11                             | 235                    | 126TLCK         | Dowlin, M. G.     |
| 7                  | 73M683          | Roadbud  | 02N 41E 26 CDD             | 07 24 73                         | Creek  |  | Stock use                | 6170                                | 19.5                 | yes              | 3040              |                                |                        |                 |                   |
| 8                  | 21M0103         | Big Horn | 02N 33E 10 D D             | 10 17 71                         | Well   |  | Domestic use             | 2160                                | 11                   | yes              | 2920              | 25                             | 202                    | 211HLCK         |                   |
| 9                  | 14M00003        | Big Horn | 02N 33E 18 DB              | 09 15 76                         | Well   |  | Domestic use             | 4000                                |                      | yes              | 2860              |                                | 81                     | 211HLCK         |                   |
| 10                 | W08B            | Big Horn | 02N 33E 26 CD              | 09 15 76                         | Pond   | no flow                                    | Thirty acre saline pond  | 1010                                |                      | no               |                   |                                |                        |                 |                   |
| 11                 | 00M0024         | Big Horn | 02N 33E 36 CD              |                                  | Well   |  |                          | 2320                                | 14                   | yes              | 2820              |                                |                        |                 |                   |
| 12                 | W08B            | Big Horn | 02N 33E 27 DAA             | 09 15 76                         | Canal  | 15 cfs (E)                                 | Irrigation return        | 780                                 | 13.6                 | yes              | 3270              |                                |                        | 125TGRV         | Wilson            |
| 13                 | 73M0596         | Treasure | 02N 37E 01 ADBA            |                                  | Spring |  | Domestic use             | 2530                                | 10.5                 | yes              | 3060              |                                |                        |                 |                   |
| 14                 | 74M20           | Treasure | 02N 37E 08 ADC             | 06 25 73                         | Well   |  | Stock use                | 2640                                | 1.1                  | yes              | 3260              |                                |                        |                 | May, Charles      |
| 15                 | 73M0601         | Big Horn | 02N 37E 20 ADBB            | 06 26 73                         | Well   |  | Stock use                |                                     |                      |                  |                   |                                |                        |                 |                   |
| 16                 | 73M696          | Treasure | 02N 38E 07 DDC             |                                  | Well   |  | Stock use                | 1270                                | 10                   | yes              | 3300              |                                |                        | 125TGRV         | Hays              |
| 17                 | 73M698          | Treasure | 02N 38E 08 ADC             | 07 03 73                         | Spring |  | Stock use                | 1750                                | 21                   | yes              | 3400              |                                |                        | 125TGRV         | Hays              |
| 18                 | 74M120          | Treasure | 02N 38E 18 ADC             | 03 15 74                         | Spring |  | Stock use                | 2274                                | 23                   | yes              | 3420              |                                |                        |                 |                   |
| 19                 | 74M21           | Treasure | 02N 38E 18 ADBB            | 06 26 73                         | Well   |  | Domestic use             | 1522                                | 9                    | yes              | 3310              |                                |                        | 125TGRV         |                   |
| 20                 | 73M597          | Treasure | 02N 38E 19 ACDA            | 07 73                            | Spring |  | Stock use                | 4440                                |                      | yes              | 3400              |                                |                        |                 |                   |
| 21                 | 74M0030         | Treasure | 02N 38E 20 BDC             | 07 73                            | Well   |  | Stock use                | 2600                                | 10                   | yes              | 3420              |                                |                        | 125TGRV         | Howard            |
| 22                 | 74M119          | Treasure | 02N 38E 22 BAB             | 07 02 73                         | Well   |  | Stock use                | 1222                                | 18                   | yes              | 3500              |                                |                        |                 |                   |
| 23                 | 74M124          | Treasure | 02N 38E 30 AAD             | 07 05 73                         | Spring | 1 gpm (E)                                  | Stock use                | 11                                  | 18                   | yes              | 3460              |                                |                        | 125TGRV         | Cass, F.          |
| 24                 | 74M0226         | Treasure | 02N 38E 30 AAD             | 07 05 73                         | Spring | 1 gpm (E)                                  | Stock use                | 2890                                | 13.0                 | yes              | 3520              |                                |                        | 126TGRV         | Cass, F.          |
| 25                 | 74M221          | Treasure | 02N 38E 32 ADBB            | 07 10 73                         | Well   | 0.6 gpm (M)                                | Stock use                |                                     |                      |                  |                   |                                |                        |                 |                   |
| 26                 | 73M607          | Roadbud  | 02N 39E 06 BCB             | 09 13 73                         | Well   | 8 gpm (M)                                  | Stock use                | 2210                                | 11                   | yes              | 3210              |                                |                        | 126TGRV         | Adenbush          |
| 27                 | 73M600          | Roadbud  | 02N 39E 06 DDC             | 09 13 73                         | Well   | 0.1 gpm (M)                                | Stock use                | 6638                                | 13.6                 | yes              | 3170              | 15                             | 110ALVM                | Adenbush        |                   |
| 28                 | 73M14           | Roadbud  | 02N 39E 12 CCB             | 11 10 72                         | Well   | 12 gpm (M)                                 | Domestic use             | 1290                                | 13.5                 | yes              | 3160              |                                |                        | 126TGRV         | Dowlin, M. G.     |
| 29                 | 73M662          | Roadbud  | 02N 39E 23 CAA             | 07 26 73                         | Well   |  | Stock use                | 1240                                | 27                   | yes              | 3360              | 89                             |                        | 126TGRV         | Dowlin, M. G.     |
| 30                 | 73M664          | Roadbud  | 02N 39E 24 CUA             | 07 26 73                         | Well   | 15 gpm (E)                                 | Stock use                | 3030                                |                      | yes              | 3250              | 60                             | 140                    | 126TGRV         | Dowlin, M. G.     |

## HARDIN 1° x 2° Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>number | County  | Location<br>T R Sec Tract       | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description       | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|-----------------|---------|---------------------------------|--------------------|--|------------------------|--------------------------------------|---------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 31          | 73M652          | Rosebud | 02N 38E 26 ADCD 07 12 73 Well   | 07 12 73           | 4 gpm (E)                                      | Stock use              | 6060                                 |                     | yes             | 3260              | 58                                |                        | 125TGRV         | Snyder, D    |
| 32          | 73M760          | Rosebud | 02N 38E 31 CBDD 07 10 73 Spring | 07 10 73           | 8 gpm (M)                                      | Stock use              | 3760                                 | 12                  | yes             | 3620              |                                   |                        | 125TGRV         | Sloan, S     |
| 33          | 73M650          | Rosebud | 02N 38E 32 DDDO 07 11 73 Well   | 07 11 73           | 8 gpm (M)                                      | Stock use              | 3520                                 | 12.5                | yes             | 3520              |                                   |                        | 125TGRV         | Shannon, W   |
| 34          | 73M648          | Rosebud | 02N 38E 34 ADDB 07 10 73 Well   | 07 10 73           | 6 gpm (E)                                      | Domestic use           | 2940                                 |                     | yes             | 3440              | 27                                |                        | 125TGRV         | Shannon, W   |
| 35          | 73M648          | Rosebud | 02N 38E 34 DADB 07 10 73 Well   | 07 10 73           | 9 gpm (E)                                      | Domestic and stock use | 2050                                 | 16                  | yes             | 3470              | 26                                |                        | 125TGRV         | Shannon, W   |
| 36          | 73M653          | Rosebud | 02N 40E 06 CBDB 07 25 73 Well   | 07 25 73           | 7 gpm (E)                                      | Stock use              | 2840                                 | 11                  | yes             | 3170              | 84                                |                        | 125TGRV         | Dowlin, M    |
| 37          | 73M761          | Rosebud | 02N 40E 18 DADB 10 06 72 Spring | 10 06 72           | 3.2 gpm (M)                                    | Stock use              | 3700                                 | 13                  | yes             | 3240              |                                   |                        | 125TGRV         | Dowlin, M    |
| 38          | 73M764          | Rosebud | 02N 40E 30 BABC 07 13 73 Well   | 07 13 73           | 12 gpm (E)                                     | Stock use              | 3360                                 | 14                  | yes             | 3270              | 72                                |                        | 125TGRV         | Dowlin, M    |
| 39          | 73M761          | Rosebud | 02N 40E 31 DCCD 11 09 72 Well   | 11 09 72           | 6 gpm (M)                                      | Stock use              | 1740                                 | 13                  | yes             | 3530              | 114                               |                        | 125TGRV         | Snyder, D    |
| 40          | 73M651          | Rosebud | 02N 40E 32 BABD 07 21 73 Well   | 07 21 73           |  | Domestic use           | 991                                  |                     | yes             | 3390              |                                   |                        | 125TGRV         | Hanrich, W   |
| 41          | 73M653          | Rosebud | 02N 40E 36 DDCD 07 13 73 Well   | 07 13 73           | 2 gpm (M)                                      | Stock use              | 2630                                 | 11.5                | yes             | 3420              | 146                               |                        | 125TGRV         | Fuhr, G. J.  |
| 42          | 73M694          | Rosebud | 02N 41E 01 DBBA 08 30 73 Well   | 08 30 73           | Stock use                                      | 818                    |                                      | yes                 | 3420            |                   | 61                                |                        | 125TGRV         | Werner, T.   |
| 43          | 73M10           | Rosebud | 02N 41E 02 DBBA 11 01 72 Well   | 11 01 72           | Domestic use                                   | 3290                   |                                      | yes                 | 3120            |                   | 237                               |                        | 125TGRV         | Werner, T.   |
| 44          | 73M592          | Rosebud | 02N 41E 09 BCBC 07 24 73 Creek  | 07 24 73           | Stock use                                      | 4230                   | 23                                   | yes                 | 3100            |                   |                                   |                        | 125TGRV         | Sirester, C. |
| 45          | 73M656          | Rosebud | 02N 41E 10 BCBC 07 19 73 Well   | 07 19 73           | 10 gpm (E)                                     | Stock use              | 1790                                 | 13                  | yes             | 3170              | 100                               |                        | 125TGRV         | Sirester, C. |
| 46          | 73M17           | Rosebud | 02N 41E 17 ADAD 10 03 73 Spring | 10 03 73           | Stock use                                      | 2798                   | 14                                   | yes                 | 3120            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 47          | 73M12           | Rosebud | 02N 41E 24 BABA 09 72 Well      | 09 72              | 20 gpm (E)                                     | Stock use              | 3180                                 | 10                  | yes             | 3180              | 37                                |                        | 125TGRV         | Seward, L.   |
| 48          | 73M589          | Rosebud | 02N 41E 24 BABA 09 72 Well      | 09 72              | 1.5 gpm (E)                                    | Stock use              | 1371                                 | 10                  | yes             | 3560              |                                   |                        | 125TGRV         | Seward, L.   |
| 49          | 73M581          | Rosebud | 02N 41E 27 BCCC 09 13 73 Creek  | 09 13 73           | 11 gpm (E)                                     | Stock use              | 3090                                 | 23                  | yes             | 3200              |                                   |                        | 125TGRV         | Seward, L.   |
| 60          | 74M224          | Rosebud | 02N 41E 30 DAAA 10 02 73 Well   | 10 02 73           | Stock use                                      | 3076                   | 13                                   | yes                 | 3360            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 61          | 72M623          | Rosebud | 02N 41E 33 DDBD 08 12 72 Creek  | 08 12 72           | Stock use                                      | 2220                   | 20                                   | yes                 | 3240            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 52          | 73M580          | Rosebud | 02N 41E 34 B 07 24 73 Creek     | 07 24 73           | Stock use                                      | 2881                   | 25.5                                 | yes                 | 3230            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 53          | 72M622          | Rosebud | 02N 41E 34 BCCA 08 12 72 Creek  | 08 12 72           | Stock use                                      | 3560                   | 18                                   | yes                 | 3240            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 54          | 73M581          | Rosebud | 02N 41E 35 DABD 09 25 73 Well   | 09 25 73           | Stock use                                      | 3770                   | 20                                   | yes                 | 3250            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 55          | 74M206          | Rosebud | 02N 41E 35 DABD 02 04 74 Well   | 02 04 74           | Stock use                                      | 3510                   |                                      | yes                 | 3250            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 56          | 74N205          | Rosebud | 02N 41E 35 DABD 02 04 74 Well   | 02 04 74           | Stock use                                      | 1786                   |                                      | yes                 | 3250            |                   |                                   |                        | 125TGRV         | Seward, L.   |
| 57          | 73M806          | Rosebud | 02N 42E 04 DABA 08 30 73 Well   | 08 30 73           | Stock use                                      | 2010                   | 11.5                                 | yes                 | 3010            |                   | 27                                |                        | 125TGRV         | Werner, T.   |
| 58          | 73M806          | Rosebud | 02N 42E 05 CABB 08 30 73 Well   | 08 30 73           | Stock use                                      | 2072                   | 12                                   | yes                 | 3010            |                   | 60                                |                        | 125TGRV         | Werner, T.   |
| 59          | 73N89           | Rosebud | 02N 42E 06 CBDD 11 01 72 Well   | 11 01 72           | Stock use                                      | 1680                   | 12                                   | yes                 | 3140            |                   | 88                                |                        | 125TGRV         | Werner, T.   |
| 60          | 72M759          | Rosebud | 02N 43E 12 AC 10 03 72 Spring   | 10 03 72           | 4 gpm (M)                                      | Stock use              | 4390                                 | 12                  | yes             | 3020              |                                   |                        | 125TGRV         | Werner, T.   |

Carmell Land and  
Livestock Co.

# HARDIN 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref.<br>no. | Field<br>number | County   | Location<br>T R Sec. Tract Mo. Day Yr. | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description           | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name           |
|--------------------|-----------------|----------|--|--------------------|--|----------------------------|--------------------------------------|----------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|------------------------|
| 61                 | 73MB31          | Rosbud   | 02N 43E 12 CAB                         | 10 03 73           | Well   | 0.3 gpm (E) Stock use      | 3660                                 | 11                   | yes             | 3010            |                                 |                      | 126TGRV         | Griffith Diamond Ranch |
| 62                 | 75M0591         | Rosbud   | 02N 43E 18 AAC                         | 06 12 78           | Well   | 2 gpm (E) Stock use        | 4841                                 | 11                   | yes             | 2900            | 50                              |                      |                 |                        |
| 63                 | 73M028          | Rosbud   | 02N 43E 20 CAB                         | 10 02 73           | Well   | Stock use                  | 1690                                 | 9.5                  | yes             | 2920            |                                 |                      | 126TGRV         | Garfield, G. M.        |
| 64                 | 73M029          | Rosbud   | 02N 43E 20 CAB                         | 10 02 73           | Well   | 6 gpm (M) Stock use        | 2800                                 | 13                   | yes             | 2910            | 73                              |                      | 126TGRV         |                        |
| 65                 | 73M0590         | Rosbud   | 02N 43E 30 BDA                         | 06 12 75           | Well   | 2.5 gpm (M) Stock use      | 1893                                 | 13                   | yes             | 2810            |                                 |                      | 126TGRV         |                        |
| 66                 | 73M3            | Rosbud   | 02N 44E 21 DDC                         | 10 26 72           | Well   | Stock use                  | 2030                                 | 11                   | yes             | 2820            | 3                               |                      | 126TGRV         |                        |
| 67                 | 73M5            | Rosbud   | 02N 44E 32 AAC                         | 10 20 73           | Well   | Stock use                  | 4360                                 | 11                   | yes             | 2960            | 31                              |                      | 126TGRV         | Garfield, G. M.        |
| 68                 | 73MB13          | Rosbud   | 02N 44E 33 DDC                         | 09 13 73           | Well   | Stock use                  | 4766                                 | 12.6                 | yes             | 2890            | 14                              |                      | 126TGRV         | Dodger, J.             |
| 69                 | W081            | Big Horn | 01N 30E 35 BCA                         | 09 15 76           | Creek  | Fly Creek at Ray Creek     |                                      |                      | no              |                 |                                 |                      |                 |                        |
| 70                 | 16M0017         | Big Horn | 01N 33E 18 AD                          | 09 09 16           | Well   | Unused                     | 3690                                 |                      | yes             | 2850            |                                 | 190                  | 21BPPW          |                        |
| 71                 | W084            | Big Horn | 01N 33E 27 ABH                         | 09 18 16           | Well   | 25 cfs (E)                 | 630                                  |                      | no              |                 |                                 |                      |                 |                        |
| 72                 | W081            | Big Horn | 01N 33E 28 CO                          | 09 18 16           | Well   | Domestic use               | 6470                                 | 9                    | yes             | 2860            |                                 | 12                   | 110ALVM         |                        |
| 73                 | Q0M026          | Big Horn | 01N 33E 28 CO                          | 09 15 76           | Pond   | no flow                    | 1100                                 | 17                   | yes             | 2960            |                                 |                      |                 |                        |
| 74                 | Q0M027          | Big Horn | 01N 33E 32 AB                          | 09 15 76           | Well   |                            | 2010                                 | 8                    | yes             | 2960            |                                 |                      |                 |                        |
| 76                 | 74M0121         | Big Horn | 01N 37E 06 AAC                         | 07 09 73           | Well   | Stock use                  | 2074                                 |                      | yes             | 3480            | 30                              |                      |                 | Davation               |
| 77                 | 72M0394         | Big Horn | 01N 37E 13 CCAD                        | 07 28 72           | Spring   | Stock use                  | 1450                                 | 10.6                 | yes             | 3430            |                                 |                      | Reidding        |                        |
| 78                 | 73M0591         | Big Horn | 01N 37E 15 C                           | 07 21 73           | Creek  | Sagey Creek, stagnant pool | 4950                                 | 2.3                  | yes             | 3270            |                                 |                      |                 |                        |
| 79                 | 72M0395         | Big Horn | 01N 37E 24 CACC                        | 07 29 72           | Well   | Unused                     | 810                                  | 12                   | yes             | 3560            | 5                               |                      |                 | Reidding               |
| 80                 | 74M0118         | Big Horn | 01N 38E 22 CADD                        | 06 28 73           | Creek  | Reidding Creek             | 3476                                 |                      | yes             | 3400            |                                 |                      |                 |                        |
| 81                 | 72M0423         | Big Horn | 01N 38E 22 CCCC                        | 07 18 72           | Well   | Domestic and stock use     | 1960                                 | 8                    | yes             | 3500            |                                 |                      |                 |                        |
| 82                 | 72M0424         | Big Horn | 01N 38E 29 ADCA                        | 07 21 72           | Well   | 5 gpm (E) Domestic use     | 816                                  | 13.6                 | yes             | 3480            |                                 |                      |                 |                        |
| 83                 | 72M0426         | Big Horn | 01N 38E 29 ADCA                        | 07 21 72           | Well   | 4 gpm (E) Domestic use     | 825                                  | 10                   | yes             | 3470            |                                 |                      |                 |                        |
| 84                 | 72M0421         | Big Horn | 01N 38E 29 ADCA                        | 07 31 72           | Well   | Stock use                  | 1620                                 | 8                    | yes             | 3440            |                                 |                      |                 |                        |
| 85                 | 72M0619         | Big Horn | 01N 38E 29 DBBH                        | 08 11 72           | Spring   | Stock use                  | 1340                                 | 20.5                 | yes             | 3460            |                                 |                      |                 | Cox, Merle             |
| 86                 | 72M0401         | Big Horn | 01N 38E 30 DADD                        | 07 30 72           | Spring   | Unused                     | 742                                  |                      | yes             | 3620            |                                 |                      |                 | Ovillar, John          |
| 87                 | 72M0402         | Big Horn | 01N 38E 30 DADD                        | 07 30 72           | Spring   | Unused                     | 1280                                 | 7.4                  | yes             | 3610            |                                 |                      |                 | Ovillar, John          |
| 88                 | 72M0396         | Big Horn | 01N 38E 30 DADD                        | 07 30 72           | Well   | 2 gpm (E) Domestic use     | 2140                                 | 0.2                  | yes             | 3610            | 23                              |                      | 126TGRV         | Shaw, S.               |
| 89                 | 73M0647         | Rosbud   | 01N 39E 08 E288                        | 07 06 73           | Well   | 3 gpm (M) Stock use        | 3140                                 | 12                   | yes             | 3890            |                                 |                      |                 |                        |
| 90                 | 73M650          | Rosbud   | 01N 39E 22 DDDC                        | 07 26 73           | Spring   | 6 gpm (E) Stock use        | 2160                                 |                      | yes             | 4000            |                                 |                      | 126TGRV         | Broadus, M.            |

HARDIN

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**HARDIN 1" x 2" Sheet (Con't.)**  
**Specific Conductivity Inventory Sheet (Con't.)**

| Map<br>ref. | Field<br>no. | County  | Location                        | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description        | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>depth<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Donor's name     |
|-------------|--------------|---------|---------------------------------|--------------------|--|-------------------------|--------------------------------------|----------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|------------------|
| 81          | 73M658       | Roebuck | 01N 40E 02 8ABD 07 24 73 Spring |                    | 0.6 gpm (M)                                    | Stock use               | 2930                                 | 17                   | Yes             | 3440            |                                 | 125TGRV              |                 | Fabli, G.        |
| 82          | 74M025       | Roebuck | 01N 40E 02 8CAB 07 19 73 Well   |                    | 4.8 gpm (M)                                    | Domestic use            | 483                                  | 8                    | Yes             | 3510            | 34                              | 125TGRV              |                 | Fabli, G.        |
| 83          | 74M025       | Roebuck | 01N 40E 02 8CAB 07 19 73 Well   |                    | 4.8 gpm (M)                                    | Domestic use            | 1258                                 | 11                   | Yes             | 3510            | 42                              | 100 125TGRV          |                 | Fabli, G.        |
| 84          | 73M111       | Roebuck | 01N 40E 13 02CC 04 02 73 Well   |                    | 20 gpm (E)                                     | Stock use               | 1660                                 | 10.5                 | Yes             | 3400            |                                 | 125TGRV              |                 | Fabli, B.        |
| 95          | 75M0314      | Roebuck | 01N 40E 13 02CC 04 14 75 Well   |                    | 4.3 gpm (M)                                    | Unused                  | 2943                                 | 13.5                 | Yes             | 3480            | 103                             | 185 125FRUN          |                 |                  |
| 96          | 75M0417      | Roebuck | 01N 40E 13 02CC 05 29 75 Well   |                    | 0.5 gpm (M)                                    | Unused                  | 2326                                 | 13                   | Yes             | 3480            | 108                             | 149 125FRUN          |                 |                  |
| 97          | 74M0213      | Roebuck | 01N 40E 14 8B8B 10 03 73 Well   |                    | 50 gpm (E)                                     | Domestic use            | 1842                                 | 10                   | Yes             | 3460            | 20                              | 125TGRV              |                 |                  |
| 98          | 74M0212      | Roebuck | 01N 40E 14 8B8B 10 03 73 Well   |                    | 50 gpm (E)                                     | Domestic use            | 1842                                 | 10                   | Yes             | 3460            | 20                              | 125TGRV              |                 |                  |
| 99          | 73M689       | Roebuck | 01N 40E 15 8ACB 07 25 73 Creek  |                    | 50 gpm (E)                                     | Stock use               | 3130                                 | 26                   | Yes             | 3460            |                                 | 125TGRV              |                 |                  |
| 100         | 75M0309      | Roebuck | 01N 40E 15 8BDA 05 18 75 Well   |                    | Unused   | Unused                  | 3113                                 | 6                    | Yes             | 3480            | 10                              | 125FRUN              |                 |                  |
| 101         | 75M0308      | Roebuck | 01N 40E 15 8B8B 05 16 75 Well   |                    | Unused   | Unused                  | 2179                                 | 7                    | Yes             | 3500            | 18                              | 47 125FRUN           |                 |                  |
| 102         | 75M0307      | Roebuck | 01N 40E 15 8B8B 05 16 75 Well   |                    | Unused   | Unused                  | 1305                                 | 8                    | Yes             | 3490            | 22                              | 60 125FRUN           |                 |                  |
| 103         | 73M742       | Roebuck | 01N 41E 01 0ACD 09 25 73 Well   |                    | Unused   | Unused                  | 2350                                 | 8                    | Yes             | 3200            | 36                              |                      |                 |                  |
| 104         | 73M743       | Roebuck | 01N 41E 01 0DAD 09 25 73 Well   |                    | Unused   | Unused                  | 3140                                 |                      | Yes             | 3240            | 23                              |                      |                 |                  |
| 105         | 73M588       | Roebuck | 01N 41E 03 8B8B 07 25 73 Creek  |                    | Unused   | Arnette Creek           | 2770                                 | 23                   | Yes             | 3220            |                                 |                      |                 |                  |
| 106         | 73M669       | Roebuck | 01N 41E 03 0DDO 08 20 73 Well   |                    | 3 gpm (M)                                      | Stock use               | 1240                                 | 11.5                 | Yes             | 3320            | 66                              | 125TGRV              |                 | Snyder, J.       |
| 107         | 75M0306      | Roebuck | 01N 41E 04 0AAB 05 16 75 Well   |                    | Unused   | Unused                  | 2537                                 | 9.5                  | Yes             | 3360            | 21                              | 50 125FRUN           |                 |                  |
| 108         | 74M0215      | Roebuck | 01N 41E 07 0DBA 10 03 73 Well   |                    | 5 gpm (E)                                      | Stock use               | 1160                                 | 11                   | Yes             | 3360            |                                 | 125 125TGRV          |                 |                  |
| 109         | 75M0318      | Roebuck | 01N 41E 10 0ACD 05 16 75 Well   |                    | 12.5 gpm (M)                                   | Unused                  | 2483                                 | 11                   | Yes             | 3340            | 84                              | 130 125FRUN          |                 |                  |
| 110         | 75M0418      | Roebuck | 01N 41E 10 0ACD 05 28 75 Well   |                    | 0.2 gpm (M)                                    | Unused                  | 2930                                 | 10                   | Yes             | 3340            | 110                             | 149 125FRUN          |                 |                  |
| 111         | 73M749       | Roebuck | 01N 41E 12 0ADD 09 25 73 Well   |                    | Unused   | Stock use               | 1300                                 |                      | Yes             | 3320            | 37                              |                      |                 |                  |
| 112         | 73M687       | Roebuck | 01N 41E 12 0DBD 08 02 73 Well   |                    | 2.3 gpm (M)                                    | Stock use               | 2540                                 | 16.5                 | Yes             | 3610            | 22                              | 125TGRV              |                 | McRae, D.        |
| 113         | 73M085       | Roebuck | 01N 41E 13 0CDD 07 16 73 Well   |                    | 8 gpm (E)                                      | Used for watering grass | 1710                                 | 18                   | Yes             | 3290            | 107                             | 125TGRV              |                 | Snyder, J.W.     |
| 114         | 75M0313      | Roebuck | 01N 41E 18 8AB 05 13 75 Well    |                    | 2.4 gpm (M)                                    | Unused                  | 1265                                 | 13.5                 | Yes             | 3410            | 101                             | 225 125FRUN          |                 |                  |
| 115         | 73M083       | Roebuck | 01N 41E 23 0CDD 08 09 73 Well   |                    | Unused   | Industrial use          | 2544                                 | 19                   | Yes             | 3230            | 45                              |                      |                 | Peabody Coal Co. |
| 116         | 74M0208      | Roebuck | 01N 41E 27 0ADB 02 04 74 Well   |                    | Unused   | Unused                  | 3800                                 |                      | Yes             | 3220            |                                 |                      |                 |                  |
| 117         | 74M0209      | Roebuck | 01N 41E 27 0ADD 02 04 74 Well   |                    | Unused   | Unused                  | 7242                                 |                      | Yes             | 3220            |                                 |                      |                 |                  |
| 118         | 74M020       | Roebuck | 01N 41E 27 0ADB 02 04 74 Well   |                    | Unused   | Unused                  | 3948                                 |                      | Yes             | 3240            | 47                              |                      |                 |                  |
| 119         | 74M023       | Roebuck | 01N 42E 07 0CA 02 04 74 Well    |                    | Unused   | Unused                  | 4980                                 |                      | Yes             | 3250            | 25                              |                      |                 |                  |
| 120         | 73M2         | Roebuck | 01N 42E 10 0CDD 10 18 72 Well   |                    | 15 gpm (E)                                     | Stock                   | 3180                                 | 10.6                 | Yes             | 3080            | 19                              | 125TGRV              |                 | Klauer, E.M.     |

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|-------------|-----------------|----------|--------------------------------|---------------------------------|---|------------------------|--------------------------------------|---------------------|-----------------|-------------------|-----------------------------------|---------------------------------|-----------------|---------------|
| 121         | 73M701          | Rosebud  | 01N 42E 17 BDDC 02 04 74 Well  |                                 |   | Unused                 | 2173                                 |                     | yes             | 3050              | 37                                |                                 |                 |               |
| 122         | 73M740          | Rosebud  | 01N 42E 18 AAAAB 09 25 73 Well |                                 |   | Unused                 | 2820                                 |                     | yes             | 3280              | 41                                |                                 |                 |               |
| 123         | 73M700          | Rosebud  | 01N 42E 18 AAAAB 02 04 74 Well |                                 |   | Unused                 | 2720                                 |                     | yes             | 3040              | 41                                |                                 |                 |               |
| 124         | 73M698          | Rosebud  | 01N 42E 19 DBBA 08 02 73 Well  |                                 | 8 gpm (E)                                 | Stock use              | 1510                                 | 11                  | yes             | 3130              | 21                                |                                 | 1251GRV         | McRae, D      |
| 125         | 73M794          | Rosebud  | 01N 42E 22 CABD 09 05 73 Well  |                                 |   | Stock use              | 4698                                 | 11                  | yes             | 3060              |                                   |                                 | 1251GRV         | Curran, J     |
| 126         | 73M692          | Rosebud  | 01N 42E 25 BDDC 09 08 73 Well  |                                 |   | Domestic use           | 4000                                 |                     | yes             | 2930              | 14                                |                                 | 1251GRV         | Curran, J     |
| 127         | 73M801          | Rosebud  | 01N 42E 28 BDDC 09 09 73 Well  |                                 |   | Stock use              | 1908                                 | 10                  | yes             | 2980              | 17                                |                                 | 1251GRV         | McRae, W      |
| 128         | 72M755          | Rosebud  | 01N 42E 33 ADBC 09 28 72 Well  |                                 | 13.3 gpm (M)                              | Stock use              | 3490                                 | 10                  | yes             | 2970              | 21                                |                                 | 1251GRV         | McRae, W      |
| 129         | 73M650          | Rosebud  | 01N 42E 34 ACAB 02 01 73 Well  |                                 |   | Domestic use           | 2420                                 |                     | yes             | 2860              | 8                                 |                                 | 1251GRV         | McRae, W      |
| 130         | 73M1            | Rosebud  | 01N 43E 17 AACA 10 18 72 Well  |                                 | 4 gpm (M)                                 | Stock use              | 2050                                 | 10.5                | yes             | 2900              | 39                                |                                 | 1251GRV         | Kluver, E M   |
| 131         | 73M824          | Rosebud  | 01N 43E 33 B8B8 10 01 73 Well  |                                 |   | Stock use              | 1410                                 | 10.5                | yes             | 2580              | 18                                | 78                              | 110ALVM         | McRae, W D    |
| 132         | 75M0592         | Rosebud  | 01N 44E 04 DABD 06 13 75 Well  |                                 | 0.1 gpm (E)                               | Stock use              | 5438                                 | 12                  | yes             | 2890              | 22                                |                                 | 1251GRV         |               |
| 133         | 73M15           | Rosebud  | 01N 44E 07 AADA 11 29 72 Well  |                                 |   | Stock use              | 4630                                 | 11                  | yes             | 2860              | 48                                |                                 | 1251GRV         | Garfield, G M |
| 134         | 73M808          | Rosebud  | 01N 44E 12 GBCA 09 12 73 Well  |                                 |   | Domestic use           | 1998                                 | 16                  | yes             | 2750              |                                   |                                 | 1251LCK         | Dodge, J      |
| 135         | 73M814          | Rosebud  | 01N 44E 14 B8DC 09 25 73 Well  |                                 |   | Domestic use           | 1994                                 | 14.5                | yes             | 2730              |                                   |                                 | 1251LCK         | Hart Funch    |
| 136         | 73M810          | Rosebud  | 01N 44E 29 ACBD 09 13 73 Well  |                                 |   | Stock use              | 1948                                 | 11                  | yes             | 2900              | 3                                 |                                 | 1251GRV         | Dodge, J      |
| 137         | 73M812          | Rosebud  | 01N 44E 30 BDCA 09 13 73 Well  |                                 |   | Stock use              | 4400                                 | 18.5                | yes             | 2950              |                                   |                                 | 110ALVM         | Dodge, J      |
| 138         | 73M811          | Rosebud  | 01N 44E 31 AABA 09 13 73 Well  |                                 |   | Stock use              | 1552                                 | 13                  | yes             | 3030              | 3                                 |                                 | 1251GRV         | Dodge, J      |
| 139         | 72M757          | Rosebud  | 01N 44E 34 DCCB 09 29 72 Well  |                                 |   | Stock use              | 2830                                 | 11.5                | yes             | 2810              |                                   |                                 | 1251GRV         | Dodge, J      |
| 140         | WQB15           | Big Horn | 01S 31E 14 ABO 09 16 76 Seep   |                                 | no flow                                   |                        | 72200                                | 17                  | yes             |                   |                                   |                                 |                 | O'Brien, L    |
| 141         | WQB16           | Big Horn | 01S 31E 16 DA 09 16 76 Pond    |                                 |   | Near 100 acre seep     | 14740                                | 23                  | yes             |                   |                                   |                                 |                 |               |
| 142         | WQB17           | Big Horn | 01S 33E 02 DBB 09 15 76 Ditch  |                                 | no flow                                   | Irrigation ditch seep  | 4210                                 | 20                  | yes             | 3050              |                                   |                                 |                 |               |
| 143         | WQB3            | Big Horn | 01S 33E 02 CAB 09 15 76 Ditch  |                                 | 30 cft (E)                                | Laguna Canal           | 690                                  |                     | yes             | 3000              |                                   |                                 | 331MDSN         |               |
| 144         | WQB3            | Big Horn | 01S 33E 13 DO 11 23 37 Well    |                                 |   |                        |                                      |                     | yes             |                   |                                   |                                 |                 |               |
| 145         | 06M0029         | Big Horn | 01S 33E 14 AB Well             |                                 |   |                        | 6590                                 | 8                   | yes             | 2890              |                                   |                                 |                 |               |
| 146         | 06M0030         | Big Horn | 01S 33E 14 DB Well             |                                 |   |                        | 5830                                 | 10                  | yes             | 2890              |                                   |                                 |                 |               |
| 147         | 06M0031         | Big Horn | 01S 33E 16 DB Well             |                                 |   |                        | 3380                                 | 7                   | yes             | 2910              |                                   |                                 |                 |               |
| 148         | WQB21           | Big Horn | 01S 33E 18 B8 Well             |                                 | 25 gpm (E)                                | About 10 acres in size | 6400                                 |                     | no              |                   |                                   |                                 |                 |               |
| 150         | WQB14           | Big Horn | 01S 33E 18 BDD 09 16 76 Seep   |                                 | no flow                                   |                        | 89570                                | 29                  | yes             |                   |                                   |                                 |                 |               |

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|-------------|--------------|--------------|---------------------------|---------------------------------|--|-------------------------|--------------------------------------|----------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|--------------|
| 151 WQB118  |              | Big Horn     | 01S 33E 18 C              | 11 17 75                        | Sheep  |                         | 6300                                 | no                   |                 |                 |                                 |                      |                 |              |
| 152 OM0032  |              | Big Horn     | 01S 33E 18 DA             |                                 | Well   |                         | 1600                                 | yes                  |                 | 3040            |                                 |                      |                 |              |
| 153 OM0033  |              | Big Horn     | 01S 33E 19 DA             |                                 | Well   |                         | 1200                                 | yes                  |                 | 3040            |                                 |                      |                 |              |
| 154 OM0034  |              | Big Horn     | 01S 33E 20 CA             |                                 | Well   |                         | 7010                                 | 11                   | yes             | 2960            |                                 |                      |                 |              |
| 155 OM0036  |              | Big Horn     | 01S 33E 26 CB             |                                 | Well   |                         | 2190                                 | 11                   | yes             | 2810            |                                 |                      |                 |              |
| 156 21M0104 |              | Big Horn     | 01S 33E 27 D              | 10 20 21                        | Well   |                         |                                      | yes                  |                 | 2820            | 36                              | 37                   | 110ALVM         |              |
| 157 21M0105 |              | Big Horn     | 01S 33E 30 A              | 10 10 21                        | Well   |                         |                                      | yes                  |                 | 3040            | 16                              | 18                   | 110TRHC         |              |
| 158 74M0037 |              | Big Horn     | 01S 37E 01 BAAC           | 09 11 73                        | Well   | Unused                  | 2380                                 | 11                   | yes             | 3490            | 55                              |                      | 125TGRV         | Peters, Joe  |
| 159 74M0116 |              | Big Horn     | 01S 37E 01 BAAD           | 09 11 73                        | Well   | Stock use               |                                      | yes                  |                 | 3500            |                                 |                      | 125TGRV         | Peters       |
| 160 74M0105 |              | Big Horn     | 01S 38E 03 CACC           | 06 27 73                        | Well   | Stock use               | 578                                  | 12                   | yes             | 3650            |                                 |                      |                 | Cox          |
| 161 72M0420 |              | Big Horn     | 01S 38E 09 ACBB           | 07 18 72                        | Well   | Stock use               | 1060                                 | 8.2                  | yes             | 3520            |                                 |                      |                 | Crum         |
| 162 72M0421 |              | Big Horn     | 01S 38E 09 BADD           | 07 18 72                        | Well   | Domestic use            | 1200                                 | 10                   | yes             | 3510            |                                 |                      |                 | Crum         |
| 163 72M0403 |              | Big Horn     | 01S 38E 09 BADD           | 07 01 72                        | Well   | Stock use               | 1200                                 | 10                   | yes             | 3510            |                                 | 0.6                  |                 | Crum         |
| 164 72M0404 |              | Big Horn     | 01S 38E 09 CAAA           | 06 01 72                        | Well   | Stock use               | 1270                                 | 11                   | yes             | 3520            |                                 | 1.7                  | 125TGRV         | Crum         |
| 165 73M799  |              | Rosebud      | 01S 38E 12 DCBA           | 09 12 73                        | Spring   | 1 gpm (EI)              | 1814                                 | 13                   | yes             | 3770            |                                 |                      |                 |              |
| 166 73M797  |              | Rosebud      | 01S 40E 06 BBDB           | 08 12 73                        | Spring   | 0.25 gpm (EI)           | 1424                                 | 11                   | yes             | 3890            |                                 |                      | 110ALVM         | Bailey, D.   |
| 167 73M788  |              | Rosebud      | 01S 40E 07 DADA           | 09 12 73                        | Well   | Stock use               | 2806                                 | 13                   | yes             | 3580            |                                 |                      | 125TGRV         |              |
| 168 73M798  |              | Rosebud      | 01S 40E 08 AAAC           | 09 12 73                        | Spring   | 2 gpm (M)               | 2226                                 | 12.5                 | yes             | 3600            |                                 |                      | 110ALVM         | Bailey, D.   |
| 169 73M795  |              | Rosebud      | 01S 41E 02 AAB8           | 09 07 73                        | Well   | Stock use               | 2348                                 |                      | yes             | 3150            | 38                              |                      | 125TGRV         | Bailey, J.   |
| 170 73M718  |              | Rosebud      | 01S 41E 17 DAAA           | 12 01 72                        | Well   | Stock use               | 2420                                 | 10.5                 | yes             | 3170            | 24                              |                      | 125TGRV         | Golder, J.   |
| 171 76M0118 |              | Powder River | 01S 41E 12 BACB           | 02 27 76                        | Well   | Domestic use            | 1820                                 | 12.5                 | yes             | 3070            | 21                              | 248                  | 125TGRV         |              |
| 172 73M8    |              | Rosebud      | 01S 41E 32 CABA           | 10 27 72                        | Well   | Stock use               | 3220                                 | 12                   | yes             | 3160            | 60                              |                      | 125TGRV         | Golder, J.   |
| 173 73M7    |              | Rosebud      | 01S 41E 33 DBCB           | 10 27 72                        | Well   | Domestic use            | 1870                                 |                      | yes             | 3120            | 18                              |                      | 125TGRV         | Golder, J.   |
| 174 73M656  |              | Rosebud      | 01S 42E 04 DCAB           | 08 01 73                        | Well   | Used for watering grass | 4920                                 | 11.5                 | yes             | 3010            | 27                              |                      | 125TGRV         | McRae, D.    |
| 176 73M666  |              | Rosebud      | 01S 42E 04 DCA            | 08 01 73                        | Well   |                         | 3670                                 | 13                   | yes             | 3010            | 22                              |                      | 125TGRV         | McRae, D.    |
| 176 73M18   |              | Rosebud      | 01S 43E 11 CACB           | 11 29 72                        | Well   | Stock use               | 1740                                 | 9.5                  | yes             | 3110            | 24                              |                      | 125TGRV         | McRae, W. D. |
| 178 72M756  |              | Big Horn     | 01S 44E 08 DCAD           | 09 26 72                        | Well   | Stock use               | 2050                                 | 11                   | yes             | 2920            | 34                              |                      | 125TGRV         | McRae, W. D. |
| 178 72M758  |              | Big Horn     | 01S 44E 08 DCCB           | 09 26 72                        | Well   | Domestic use            | 2050                                 | 11                   | yes             | 3060            | 15                              | 21                   | 110TRHC         |              |
| 179 WQB12   |              | Big Horn     | 01S 44E 08 DCC            | 09 16 76                        | Well   | McRae's area            | 6300                                 | 22                   | yes             |                 |                                 |                      |                 |              |
| 180 72M764  |              | Rosebud      | 01S 41E 02 BABA           | 08 28 72                        | Spring   | 4 gpm (M)               | 377                                  | 8                    | yes             | 3360            |                                 |                      | 125TGRV         | McRae, D.    |



# HARDIN 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>no. | County       | Location<br>T R Sec. Tract | Collection<br>date<br>Mo Day Yr. | Flow or yield<br>E = estimated<br>M = measured | Site description                | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|--------------|--------------|----------------------------|----------------------------------|--|---------------------------------|--------------------------------------|---------------------|-----------------|-------------------|---|-----------------|--------------|
| 181         | 73M17        | Rowland      | 02S 41E 02 DAB             | 11 30 72                         | Well   | Stock use                       | 4800                                 | 11.5                | yes             | 3430              | 13B                                     | 1251GRV         | McRae, D     |
| 182         | 72M153       | Rowland      | 02S 41E 02 DAB             | 09 21 72                         | Spring   | 4 gpm (M)                       | 1190                                 | 11.5                | yes             | 3000              |   | 1251GRV         | Down, J F    |
| 183         | 72M152       | Rowland      | 02S 41E 14 CB              | 09 21 72                         | Spring   | 1 gpm (M)                       | 1020                                 | 12                  | yes             | 3000              |   | 1251GRV         | Down, J F    |
| 184         | 69M0006      | Big Horn     | 03S 31E 21 AC              | 12 31 69                         | Well   | Stock use                       | 3106                                 |                     | yes             | 3240              |   | 2151GRV         | Down, J F    |
| 185         | 55M0006      | Big Horn     | 03S 31E 34 BC              | 06 18 55                         | Well   |                                 |                                      |                     | yes             | 3490              |   | 331MDSN         |              |
| 186         | W0B10        | Big Horn     | 03S 32E 27 AAC             | 09 16 76                         | Creek  | 0.1 cfs (E)                     | 6454                                 | 22                  | yes             | 3000              |   |                 |              |
| 187         | 00M0035      | Big Horn     | 03S 32E 08 BD              |                                  | Well   |                                 | 7520                                 | 11                  | yes             | 3100              |   |                 |              |
| 188         | 00M0037      | Big Horn     | 03S 32E 18 DC              |                                  | Well   |                                 |                                      |                     | yes             | 3100              |   |                 |              |
| 189         | 78M0002      | Big Horn     | 03S 32E 18 DCB             | 06 28 77                         | Well   | 75 gpm (M)                      | 2667                                 | 10                  | yes             | 3080              | 10                                      | 123             |              |
| 190         | 78M0003      | Big Horn     | 03S 32E 18 DCB             | 06 28 77                         | Well   | Custer Battlefield Well, unused | 518                                  | 26                  | yes             | 3060              |   |                 |              |
| 191         | W0B13        | Big Horn     | 03S 32E 30 ADD             | 09 16 76                         | Pond   | Little Big Horn River           |                                      |                     |                 |                   |   |                 |              |
| 192         | 75M0194      | Rowland      | 03S 44E 11 BCD             | 04 29 75                         | Well   | Domestic use                    | 1545                                 |                     | no              | 2940              |   |                 |              |
| 193         | 75M0003      | Rowland      | 03S 44E 31 BDA             | 06 05 75                         | Well   | Stock use                       | 1318                                 | 12.5                | yes             | 2980              | 5                                       | 300             |              |
| 194         | 78M0114      | Powder River | 03S 46E 32 DDA             | 02 26 78                         | Well   | Domestic use                    | 1390                                 |                     | yes             | 3010              |   | 372             | 1251GRV      |
| 195         | 00M0038      | Big Horn     | 04S 32E 02 AA              |                                  | Well   |                                 | 6670                                 | 13                  | yes             | 3180              |   |                 | Sly          |
| 196         | W0B11        | Big Horn     | 04S 32E 16 DDB             | 09 16 76                         | Creek  | Blaguen Creek                   | 2535                                 | 23                  | yes             |                   |   |                 |              |
| 197         | 75M0002      | Big Horn     | 04S 32E 23 DC              |                                  | Well   |                                 | 2720                                 | 12                  | yes             | 3060              |   |                 |              |
| 198         | 73M0107      | Big Horn     | 04S 32E 23 DC              |                                  | Well   |                                 | 3190                                 | 10                  | yes             | 3060              | 35                                      | 45              | 110ALVM      |
| 199         | 00M0017      | Big Horn     | 04S 32E 26 BD              | 10 18 21                         | Well   |                                 | 2130                                 | 10.5                | yes             | 3100              |   |                 |              |
| 200         | 00M0018      | Big Horn     | 04S 32E 36 BD              |                                  | Well   |                                 |                                      |                     |                 |                   |   |                 |              |
| 201         | 00M0019      | Big Horn     | 04S 32E 38 BD              |                                  | Well   |                                 |                                      |                     |                 | 3100              |   |                 |              |
| 202         | W0B15        | Powder River | 04S 46E 04 BDA             | 10 18 76                         | Creek  | Other Creek                     | 2690                                 | 11.5                | yes             |                   |   |                 |              |
| 203         | 00M0020      | Big Horn     | 05S 31E 35 CC              |                                  | Well   |                                 | 2689                                 |                     | yes             |                   |   |                 |              |
| 204         | 00M0021      | Big Horn     | 05S 31E 36 DB              |                                  | Well   |                                 | 1180                                 | 9                   | yes             | 3160              |   |                 |              |
| 205         | 00M0022      | Big Horn     | 05S 32E 11 BB              |                                  | Well   |                                 | 6030                                 | 10                  | yes             | 3160              |   |                 |              |
| 206         | 00M0023      | Big Horn     | 05S 32E 20 BA              |                                  | Well   |                                 | 1640                                 | 8                   | yes             | 3120              |   |                 |              |
| 207         | 75M0192      | Rowland      | 05S 43E 16 DDC             | 05 01 75                         | Creek  | Stock use                       | 817                                  | 13                  | yes             | 3120              |   |                 |              |
| 208         | 67M0005      | Big Horn     | 06S 32E 27 CD              | 10 06 67                         | Well   | 0.5 gpm (M)                     |                                      |                     | yes             | 3520              |   |                 | 331MDSN      |
| 209         | 51M0001      | Big Horn     | 06S 32E 34 ABB             | 08 07 61                         | Well   | 290 gpm (E)                     |                                      |                     | yes             | 3640              |   |                 | 320AMSD      |
| 210         | 61M0003      | Big Horn     | 06S 32E 34 ACC             | 08 07 61                         | Well   | 2 gpm (E)                       |                                      |                     | yes             | 3440              |   |                 | 331MDSN      |

HARDIN

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**HARDIN 1" x 2" Sheet (Con't.)**  
**Specific Conductivity Inventory Sheet (Con't.)**

| Map<br>ref. | Field<br>no | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E - estimated<br>M - measured | Site description              | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analyst | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|-------------|--------------|---------------------------|---------------------------------|--|-------------------------------|--------------------------------------|----------------------|----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 211         | W0819       | Big Horn     | 06S 34E 13                | 11 18 75                        | Creek  | 25 gpm (E)                    | 4330                                 |                      |                |                   |                                   |                        |                 |              |
| 212         | W0820       | Big Horn     | 06S 34E 13                | 11 18 75                        | Creek  | 25 gpm (E)                    | 3750                                 | 24.6                 | yes            | 3180              |                                   |                        |                 |              |
| 213         | 72M239      | Roeland      | 06S 43E 19 DD             | 06 01 72                        | Creek  | 0.1 cfs (M)                   | 925                                  | 5                    | yes            | 3500              |                                   |                        |                 |              |
| 214         | 72M0191     | Roeland      | 06S 43E 29 AADB           | 05 01 75                        | Creek  | 3.52 gpm (M)                  | 1647                                 |                      | yes            | 3900              |                                   |                        |                 |              |
| 215         | 64M026      | Powder River | 08S 46E 11 AA             | 06 10 64                        | Well   |                               |                                      |                      |                |                   |                                   |                        |                 |              |
| 216         | 72M0147     | Big Horn     | 09S 40E 15 DCB            | 05 21 72                        | Ditch  | 2 cfs (E)                     | 2670                                 |                      | yes            | 3430              |                                   |                        |                 |              |
| 217         | 72M0252     | Big Horn     | 09S 40E 16 ABCA           | 06 21 72                        | Well   | Unused                        | 2020                                 |                      | yes            | 3500              | 45                                |                        | 125F RUN        |              |
| 218         | 72M0258     | Big Horn     | 09S 40E 16 ABCA           | 06 21 72                        | Well   | Unused                        | 1850                                 |                      | yes            | 3500              | 46                                | 135                    | 125F RUN        |              |
| 219         | 72M0202     | Big Horn     | 09S 40E 16 ABCA           | 06 22 72                        | Well   | Unused                        | 1920                                 |                      | yes            | 3500              | 46                                | 135                    | 125F RUN        |              |
| 220         | 72M0253     | Big Horn     | 09S 40E 16 ABCD           | 06 21 72                        | Well   | Unused                        | 2520                                 |                      | yes            | 3500              | 60                                | 207                    | 125F RUN        |              |
| 221         | 72M0254     | Big Horn     | 09S 40E 16 ABCD           | 06 21 72                        | Well   | Unused                        | 1830                                 |                      | yes            | 3490              | 61                                | 135                    | 125F RUN        |              |
| 222         | 72M0225     | Big Horn     | 09S 40E 16 ABCD           | 06 21 72                        | Well   | Unused                        | 1480                                 | 14.3                 | yes            | 3490              | 41                                | 207                    | 125F RUN        |              |
| 223         | 72M0257     | Big Horn     | 09S 40E 16 ABCD           | 06 21 72                        | Well   | Unused                        | 1660                                 | 12.5                 | yes            | 3490              | 81                                | 135                    | 125F RUN        |              |
| 224         | 72M0259     | Big Horn     | 09S 40E 16 ABCD           | 06 21 72                        | Well   | Unused                        | 2520                                 |                      | yes            | 3500              | 60                                |                        | 125F RUN        |              |
| 225         | 72M0260     | Big Horn     | 09S 40E 16 ABCD           | 06 22 72                        | Well   | Unused                        | 1620                                 | 12.5                 | yes            | 3490              | 60                                | 135                    | 125F RUN        |              |
| 226         | 72M0161     | Big Horn     | 09S 40E 16 ABCD           | 06 22 72                        | Well   | Unused                        | 2610                                 |                      | yes            | 3500              | 60                                | 135                    | 125F RUN        |              |
| 227         | 72M0264     | Big Horn     | 09S 40E 16 ABCD           | 06 22 72                        | Well   | Unused                        | 1590                                 |                      | yes            | 3490              | 60                                | 135                    | 125F RUN        |              |
| 228         | 72M0397     | Big Horn     | 09S 40E 22 DBAD           | 07 21 72                        | River  | Tongue River at Decker Bridge | 669                                  | 24                   | yes            | 3440              |                                   |                        |                 |              |
| 229         | 72M0396     | Big Horn     | 09S 40E 29 CCAD           | 07 21 72                        | Well   | Domestic use                  | 1740                                 | 10.9                 | yes            | 3520              |                                   |                        |                 |              |
| 230         | W0817       | Big Horn     | 09S 41E 10 CC             | 06 10 76                        | Creek  | Ditch Creek                   | 5350                                 |                      | yes            |                   |                                   |                        |                 |              |
| 231         | 72M0235     | Big Horn     | 09S 44E 2                 | 06 01 72                        | Reservoir                                      | Stock reservoir               | 1380                                 | 20.5                 | yes            | 3900              |                                   |                        |                 |              |



## Chemical Analyses

| Mau<br>rel.<br>no. | Location<br>T R Sec Trect | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Mange-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 3                  | 03N 37E 26 DADC           | 06 27 73                        | Well   | 7.9             | 20                     | 109.5          | 2.6                   |              |                        |                               | 237                                     | 43                                   | 6.2              | 55                            |
| 4                  | 03N 37E 35 CDB            | 06 25 73                        | Well   | 4.4             | 1.6                    | 378            | 1.7                   |              |                        | 7.9                           | 534                                     | 15                                   | 8.9              | 344                           |
| 5                  | 03N 37E 36 CDDA           | 09 03 73                        | Spring | 40              | 40.8                   | 28.8           | 1.4                   |              |                        | 1.6                           | 190                                     | 82                                   | 30               | 1938                          |
| 6                  | 03N 39E 36 BACD           | 07 26 73                        | Well   | 4.4             | 5                      | 378            | 2                     | .01          |                        | 8.6                           | 785                                     | 19                                   | 42               | 99                            |
| 7                  | 03N 41E 28 CDDO           | 07 24 73                        | Creek  | 29.4            | 549                    | 838            | 16.4                  | .14          | 3.08                   | 16.1                          | 616                                     |                                      | 36               | 4100                          |
| 8                  | 02N 33E 10 DD             | 10 17 21                        | Well   | 73              | 50                     | 372            | 5.6                   | .07          |                        | 25                            | 521                                     |                                      | 20               | 725                           |
| 9                  | 02N 33E 15 B8             | 10 17 14                        | Well   | 33              | 22                     |                |                       |              |                        | 48                            | 654                                     |                                      | 12               | 527                           |
| 11                 | 02N 33E 35 CD             |                                 | Well   | 175             | 59                     | 304            | 6.1                   | .42          |                        | 24                            | 432                                     |                                      | 31               | 933                           |
| 13                 | 02N 37E 01 AD8A           |                                 | Spring | 57              | 119                    | 63             | 4.8                   |              |                        | 12.5                          | 327                                     |                                      | 6.4              | 463                           |
| 14                 | 02N 37E 08 ADCD           | 06 25 73                        | Well   | 22              | 46                     | 491            | 6.3                   |              |                        | 9.6                           | 471                                     | 19                                   | 22               | 850                           |
| 15                 | 02N 37E 20 ABDB           | 06 26 73                        | Well   | 6.4             | 3.8                    | 704            | 3.1                   |              |                        | 7.6                           | 805                                     | 34                                   | 13.8             | 782                           |
| 16                 | 02N 38E 07 DCCC           |                                 | Well   | 58              | 108                    | 97.8           | 4.8                   |              |                        | 10.7                          | 356                                     |                                      | 5.1              | 482                           |
| 17                 | 02N 38E 08 ACDA           | 07 03 73                        | Spring | 16.8            | 74                     | 281            | 8.3                   | .01          | .01                    | 9.7                           | 290                                     | 36                                   | 7.0              | 655                           |
| 18                 | 02N 38E 16 ADAC           | 03 15 74                        | Spring | 110             | 218                    | 127.5          | 7.1                   |              |                        | 10.5                          | 520                                     |                                      | 14.7             | 1004                          |
| 19                 | 02N 38E 18 AB8B           | 06 26 73                        | Well   | 89              | 131                    | 97             | 5.3                   |              | .01                    | 11.8                          | 417                                     |                                      | 12.0             | 557                           |
| 20                 | 02N 38E 19 ACDA           | 07 73                           | Spring | 434             | 403                    | 357            | 33                    |              | .01                    | 14.6                          | 366                                     |                                      | 4.6              | 3080                          |
| 21                 | 02N 38E 20 BDAC           | 07 73                           | Well   | 11.1            | 57                     | 525            | 6.5                   |              |                        | 1.7                           | 365                                     | 18                                   | 7.7              | 1062                          |
| 22                 | 02N 38E 22 BBAB           | 07 22 73                        | Well   | 25              | 126                    | 64             | 4.3                   |              |                        | 15.7                          | 405                                     |                                      | 4.7              | 385                           |
| 23                 | 02N 38E 30 AABD           | 07 09 73                        | Spring | 36              | 45                     | 11.2           | 1.2                   |              |                        | 14.9                          | 296                                     |                                      | 1.9              | 53                            |
| 24                 | 02N 38E 30 BCCC           | 10 05 73                        | Spring | 24              | 64                     | 27             | 2.7                   |              |                        | 12.7                          | 302                                     | 14                                   | 4.8              | 80                            |
| 25                 | 02N 38E 32 ABDB           | 07 10 73                        | Well   | 184             | 248                    | 222.5          | 8.4                   |              | .10                    | 12.7                          | 727                                     |                                      | 8.2              | 1317                          |
| 26                 | 02N 39E 05 BCB D          | 09 13 73                        | Well   | 54              | 108                    | 317.5          | 5.9                   |              | .06                    | 9.5                           | 323                                     |                                      | 7.5              | 980                           |
| 27                 | 02N 39E 05 DDDC           | 09 13 73                        | Well   | 249             | 553                    | 905            | 13.2                  | .01          | .08                    | 10.7                          | 703                                     |                                      | 27               | 4184                          |
| 28                 | 02N 39E 12 CCCC           | 11 10 72                        | Well   | 2.4             | .8                     | 330            | 1                     | .09          | .01                    | 11                            | 739                                     | 15                                   | 30               | 42                            |
| 29                 | 02N 39E 23 CAAB           | 07 26 73                        | Well   | 51              | 97                     | 108.4          | 5.7                   | .01          | .15                    | 14                            | 523                                     |                                      | 4.3              | 330                           |
| 30                 | 02N 39E 24 CDAB           | 07 25 73                        | Well   | 144             | 162                    | 450            | 7.9                   | .02          |                        | 9.6                           | 508                                     |                                      | 8.8              | 1552                          |
| 31                 | 02N 39E 25 ACDC           | 07 12 73                        | Well   | 277             | 464                    | 552            | 10.9                  | .04          | .02                    | 8.6                           | 673                                     |                                      | 22               | 3130                          |
| 32                 | 02N 39E 31 BCD            | 10 04 72                        | Spring | 196             | 387                    | 330            | 13                    | .05          | .02                    | 18                            | 571                                     |                                      | 11.7             | 2232                          |
| 33                 | 02N 39E 32 DDDO           | 07 11 73                        | Well   | 204             | 306                    | 310            | 10.6                  | .14          | .2                     | 19                            | 514                                     |                                      | 10.5             | 1945                          |
| 34                 | 02N 39E 34 AD8B           | 07 10 73                        | Well   | 157             | 327                    | 179            | 8.5                   | .02          | .05                    | 11                            | 721                                     |                                      | 11.5             | 1482                          |
| 35                 | 02N 39E 34 DADB           | 07 10 73                        | Well   | 169             | 180                    | 92             | 5.3                   | .93          | .13                    | 14                            | 484                                     |                                      | 7.3              | 950                           |
| 36                 | 02N 40E 06 CB8C           | 07 25 73                        | Well   | 22              | 13.5                   | 694            | 3.4                   | .08          | .03                    | 8.6                           | 507                                     | 14                                   | 12.2             | 1134                          |
| 37                 | 02N 40E 18 DADB           | 10 06 72                        | Spring | 115             | 304                    | 478            | 15                    | .12          | .01                    | 11                            | 734                                     |                                      | 18.6             | 1884                          |
| 38                 | 02N 40E 30 BAAC           | 07 13 73                        | Well   | 77              | 108                    | 652            | 5.9                   | 4.3          | .09                    | 7.5                           | 449                                     |                                      | 12.3             | 1656                          |
| 39                 | 02N 40E 31 DCCD           | 11 09 72                        | Well   | 162             | 136                    | 78             | 4.5                   | .51          | .05                    | 22                            | 479                                     |                                      | 7.8              | 702                           |
| 40                 | 02N 40E 32 BBAB           | 07 21 73                        | Well   | 83              | 86                     | 24.3           | 2.4                   | .16          | .02                    | 11                            | 483                                     |                                      | 3.1              | 209                           |
| 41                 | 02N 40E 35 DCCD           | 07 13 73                        | Well   | 256             | 215                    | 170            | 6.2                   | .83          | .43                    | 14                            | 781                                     |                                      | 9.9              | 1216                          |
| 42                 | 02N 41E 01 DB8A           | 08 30 73                        | Well   | 31              | 92                     | 27.6           | 3.7                   |              | .03                    | 11.5                          | 220                                     | 19                                   | 5.5              | 274                           |
| 43                 | 02N 41E 02 DB8A           | 11 01 72                        | Well   | 218             | 108                    | 512            | 8.7                   | 3.0          | .10                    | 10                            | 376                                     |                                      | 9.8              | 1736                          |
| 44                 | 02N 41E 09 BCB C          | 07 24 73                        | Creek  | 162             | 395                    | 471            | 26.6                  | .06          | .02                    | 1.1                           | 282                                     | 29                                   | 56               | 2615                          |
| 45                 | 02N 41E 10 BCB C          | 07 19 73                        | Well   | 169             | 98                     | 55             | 8.3                   | .50          | .03                    | 11                            | 363                                     |                                      | 6.5              | 620                           |
| 46                 | 02N 41E 17 ADAD           | 10 03 73                        | Spring | 169             | 250                    | 218            | 24                    |              | .01                    | 15.7                          | 529                                     | 19                                   | 21               | 1368                          |
| 47                 | 02N 41E 21 CADA           | 11 09 72                        | Well   | 172             | 173                    | 486            | 8.5                   | 1.50         | .10                    | 14                            | 544                                     |                                      | 12.9             | 1680                          |
| 48                 | 02N 41E 24 CAAA           | 06 11 75                        | Well   | 129             | 91                     | 23.7           | 4                     | .02          | .03                    | 15.3                          | 702                                     |                                      | 3.8              | 177                           |
| 49                 | 02N 41E 27 BCCC           | 09 13 73                        | Creek  | 228             | 378                    | 310            | 16                    | .05          | .02                    | 3                             | 460                                     | 43                                   | 22               | 2280                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated.

## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluor-<br>ide<br>(F) | Lab<br>pH | Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|-------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 3                  | 3.6            | 4                    | 9.04      | 12          | 638   | 376                            | 105                                       | 338   | 4.7                           | MBMG                 |                        |                 | No                            | 74M109        |
| 4                  | .203           | 1.2                  | 8.63      | 1.2         | 1530  | 1027                           | 18  | 487   | 39.0                          | MBMG                 |                        |                 | No                            | 73M800        |
| 5                  | .394           | 1                    | 8.97      | 29          | 3330  | 2258                           | 1810                                      | 429   | 3.0                           | MBMG                 |                        | 125TGRV         | No                            | 74M0029       |
| 6                  | .045           | 4.0                  | 8.34      | 13.5        | 1390  | 944                            | 13  | 708   | 45.6                          | USGS                 | 235                    | 125TLCK         | No                            | 73M681        |
| 7                  |                | 2                    | 8.18      | 19.5        | 6170  | 8146                           | 3000                                      | 505   | 6.7                           | MBMG                 |                        |                 | Yes                           | 73M583        |
| 8                  |                | .6                   | 7.40      | 11          | 2160  | 1528                           | 388                                       | 427   | 8.2                           | USGS                 | 202                    | 211HLCK         | No                            | 21M0103       |
| 9                  |                |                      |           |             |   |                                | 173                                       | 536   |                               | USGS                 | 81                     | 211HLCK         | No                            | 14M0003       |
| 11                 |                | .7                   | 7.20      | 14          | 2320  | 1746                           | 680                                       | 354   | 5.1                           | USGS                 |                        |                 | No                            | 00M0024       |
| 13                 | 1.355          |                      | 8.06      | 13.5        | 1230  | 888                            | 893                                       | 268   | 1.1                           | MBMG                 |                        |                 | No                            | 73M0596       |
| 14                 | 3.0            | 1.5                  | 8.73      | 10.5        | 2530  | 1702                           | 244                                       | 451   | 13.7                          | MBMG                 |                        | 125TGRV         | No                            | 74M20         |
| 15                 | .068           | 1.3                  | 8.73      | 1.1         | 2640  | 1953                           | 32  | 773   | 54.5                          | MBMG                 |                        |                 | No                            | 73M0601       |
| 16                 | .858           |                      | 8.00      | 10          | 1270  | 946                            | 594                                       | 292   | 1.8                           | MBMG                 |                        | 125TGRV         | No                            | 73M598        |
| 17                 | 1.1            | .1                   | 8.78      | 21          | 1750  | 1232                           | 350                                       | 358   | 6.6                           | MBMG                 |                        | 125TGRV         | No                            | 74M125        |
| 18                 |                | .2                   | 8.02      | 23          | 2274  | 1748                           | 1180                                      | 426   | 1.6                           | MBMG                 |                        | 125TGRV         | No                            | 74M120        |
| 19                 | 21.3           | .2                   | 8.17      | 9           | 1522  | 1130                           | 768                                       | 342   | 1.5                           | MBMG                 |                        | 125TGRV         | No                            | 74M21         |
| 20                 | .023           | .3                   | 7.77      |             | 4440  | 4487                           | 2750                                      | 300   | 3.0                           | MBMG                 |                        | 125TGRV         | No                            | 73M597        |
| 21                 |                | .1                   | 8.49      | 10          | 2600  | 1870                           | 268                                       | 358   | 14.1                          | MBMG                 |                        | 125TGRV         | No                            | 74M0030       |
| 22                 | 3.1            | .1                   | 8.27      | 10          | 1232  | 827                            | 590                                       | 332   | 1.2                           | MBMG                 |                        |                 | No                            | 74M119        |
| 23                 | .7             | .2                   | 8.12      | 18          |   | 309                            | 275                                       | 242   | .3                            | MBMG                 |                        |                 | No                            | 74M124        |
| 24                 | 14.4           | .2                   | 8.61      | 11          |   | 393                            | 330                                       | 295   | .7                            | MBMG                 |                        | 125TGRV         | No                            | 74M0220       |
| 25                 | 3.3            |                      | 7.64      | 13.0        | 2890  | 2362                           | 1490                                      | 597   | 2.5                           | MBMG                 |                        | 125TGRV         | No                            | 74M221        |
| 26                 | .271           | 5.9                  | 8.29      | 11          | 2210  | 1648                           | 585                                       | 265   | 5.7                           | USGS                 |                        | 125TGRV         | No                            | 73M807        |
| 27                 |                |                      | 7.95      | 13.5        | 6638  | 6288                           | 2940                                      | 576   | 7.3                           | USGS                 |                        | 110ALVM         | No                            | 73M600        |
| 28                 | .068           | 4.2                  | 8.55      | 13.5        | 1250  | 801                            | 9   | 658   | 46.8                          | MBMG                 |                        | 125TGRV         | No                            | 73M14         |
| 29                 | .406           | .2                   | 7.98      | 27          | 1240  | 869                            | 534                                       | 429   | 2.1                           | USGS                 |                        | 125TGRV         | No                            | 73M662        |
| 30                 | .045           | 3                    | 8.10      |             | 3030  | 2586                           | 1040                                      | 417   | 6.1                           | USGS                 | 140                    | 125TGRV         | No                            | 73M664        |
| 31                 | .067           | 4                    | 7.83      |             | 5060  | 4797                           | 2630                                      | 552   | 4.7                           | USGS                 |                        | 125TGRV         | No                            | 73M652        |
| 32                 | .768           | .3                   | 7.85      | 12          | 3760  | 3470                           | 2110                                      | 468   | 3.1                           | USGS                 |                        | 125TGRV         | No                            | 72M760        |
| 33                 | .768           | .3                   | 8.03      | 12.5        | 3990  | 3060                           | 1780                                      | 422   | 3.2                           | USGS                 |                        | 125TGRV         | No                            | 73M650        |
| 34                 | .225           | .2                   | 7.93      |             | 2940  | 2532                           | 1760                                      | 592   | 1.9                           | USGS                 |                        | 125TGRV         | No                            | 73M649        |
| 35                 | .113           | .1                   | 7.89      | 16          | 2050  | 1657                           | 1170                                      | 397   | 1.2                           | USGS                 |                        | 125TGRV         | No                            | 73M648        |
| 36                 | .090           | .5                   | 8.39      | 11          | 2840  | 2152                           | 110                                       | 464   | 28.8                          | USGS                 |                        | 125TLCK         | No                            | 73M663        |
| 37                 | .068           | .1                   | 8.02      | 13          | 3700  | 3188                           | 1560                                      | 602   | 5.3                           | USGS                 |                        | 125TGRV         | No                            | 72M761        |
| 38                 | .045           | .5                   | 8.06      | 14          | 3360  | 2755                           | 640                                       | 389   | 11.4                          | USGS                 |                        | 125TGRV         | No                            | 73M654        |
| 39                 |                | .1                   | 7.63      | 13          | 1740  | 1350                           | 968                                       | 393   | 1.1                           | USGS                 |                        | 125TGRV         | No                            | 73M13         |
| 40                 | .067           | 3                    | 7.93      |             | 991   | 657                            | 566                                       | 396   | .4                            | USGS                 |                        | 125TGRV         | No                            | 73M651        |
| 41                 | .225           | .3                   | 7.87      | 11.5        | 2670  | 2274                           | 1530                                      | 641   | 1.9                           | USGS                 |                        | 125TGRV         | No                            | 73M653        |
| 42                 | 2.056          |                      | 8.60      | 11.5        | 878   | 575                            | 462                                       | 244   | .6                            | USGS                 |                        | 125TGRV         | No                            | 73M804        |
| 43                 | .023           | .3                   | 8.02      |             | 3290  | 2792                           | 994                                       | 309   | 7.1                           | USGS                 | 237                    | 125TGRV         | No                            | 73M10         |
| 44                 | .271           | .7                   |           | 23          | 4230  | 3896                           | 2060                                      | 327   | 4.5                           | MBMG                 |                        |                 | Yes                           | 73M582        |
| 45                 | 1.581          | .2                   | 7.88      | 13          | 1790  | 1147                           | 828                                       | 298   | .8                            | USGS                 |                        | 125TGRV         | No                            | 73M656        |
| 46                 | 2.869          | .3                   | 8.49      | 14          | 2798  | 2348                           | 1450                                      | 465   | 2.5                           | MBMG                 |                        | 125TGRV         | No                            | 74M17         |
| 47                 | .023           | .5                   | 7.96      | 10          | 3350  | 2816                           | 1150                                      | 446   | 6.3                           | USGS                 |                        | 125TGRV         | No                            | 73M112        |
| 48                 | .16            | .3                   | 7.49      | 10          | 1371  | 790                            | 700                                       | 576   | .4                            | USGS                 |                        | 125TGRV         | No                            | 75M0589       |
| 49                 | .136           | .4                   | 8.21      | 23          | 3790  | 3485                           | 2150                                      | 377   | 2.9                           | MBMG                 |                        |                 | Yes                           | 73M581        |

## Chemical Analyses

| Well<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Sicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|---------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 50                  | 02N 41E 30 DDA            | 10 02 73                        | Well   | 316             | 247                    | 149.5          | 20                    | .03          | .01                    |                               | 350                                     |                                      | 22               | 1767                          |
| 51                  | 02N 41E 33 DDD            | 08 12 72                        | Creek  | 110             | 218                    | 145            | 13                    | .02          | .01                    | 20                            | 342                                     |                                      | 12.5             | 1150                          |
| 52                  | 02N 41E 34 B              | 07 24 73                        | Creek  | 136             | 308                    | 211            | 9.9                   | .16          | .09                    | 10.3                          | 472                                     |                                      | 13               | 1617                          |
| 53                  | 02N 41E 34 BCCA           | 08 12 72                        | Creek  | 335             | 219                    | 286            | 5.6                   | .04          | .01                    | 25                            | 499                                     |                                      | 29               | 2208                          |
| 54                  | 02N 41E 35 DABD           | 09 25 73                        | Well   | 467             | 351                    | 114            | 9                     |              |                        | 16                            | 483                                     |                                      | 15.9             | 2418                          |
| 55                  | 02N 41E 35 DABD           | 02 04 74                        | Well   | 421             | 306                    | 118.8          | 9.9                   |              |                        | 17.3                          | 333                                     |                                      | 14.3             | 2166                          |
| 56                  | 02N 41E 35 DABD           | 02 04 74                        | Well   | 139             | 104                    | 156            | 8.9                   |              |                        | 15.3                          | 542                                     |                                      | 5.9              | 962                           |
| 57                  | 02N 42E 04 DADA           | 08 30 73                        | Well   | 28              | 35                     | 412.5          | 6.7                   | 1.51         |                        | 11.3                          | 273                                     | 15                                   | 8.8              | 832                           |
| 58                  | 02N 42E 05 CABE           | 08 30 73                        | Well   | 117             | 206                    | 106.8          | 7.7                   |              | .02                    | 16                            | 220                                     |                                      | 9.5              | 1136                          |
| 59                  | 02N 42E 06 CBCE           | 11 01 72                        | Well   | 107             | 161                    | 77             | 5.2                   | 1.45         | .30                    | 17                            | 429                                     |                                      | 6.0              | 718                           |
| 60                  | 02N 43E 12 AC             | 10 03 72                        | Spring | 286             | 422                    | 398            | 17.5                  | .06          | .02                    | 20                            | 556                                     |                                      | 11.7             | 2750                          |
| 61                  | 02N 43E 12 CBAC           | 10 03 73                        | Well   | 236             | 345                    | 312            | 17.2                  | .02          | .02                    | 18.3                          | 501                                     |                                      | 11.4             | 2236                          |
| 62                  | 02N 43E 18 AAC            | 06 12 75                        | Well   | 91              | 57                     | 890            | 5.9                   | .04          | .06                    | 6.4                           | 634                                     |                                      | 49               | 1765                          |
| 63                  | 02N 43E 20 CABE           | 10 02 73                        | Well   | 54              | 41                     | 290            | 6.1                   |              | .02                    | 9.8                           | 336                                     |                                      | 3.8              | 623                           |
| 64                  | 02N 43E 27 CCBC           | 10 19 72                        | Well   | 133             | 123                    | 380            | 6.2                   | .15          | .06                    | 10                            | 397                                     |                                      | 34               | 1247                          |
| 66                  | 02N 43E 30 BDDA           | 06 12 75                        | Well   | 2.7             | .7                     | 399            | 1.8                   |              |                        | 7.5                           | 839                                     |                                      | 147              | 1                             |
| 66                  | 02N 44E 21 DDDC           | 10 26 72                        | Well   | 312             | 33                     | 173            | 4.2                   | 1.2          | .08                    | 16                            | 349                                     |                                      | 12.5             | 957                           |
| 67                  | 02N 44E 32 DACC           | 10 20 72                        | Well   | 79              | 47                     | 950            | 4.7                   | .79          | .06                    | 10                            | 659                                     |                                      | 23               | 1800                          |
| 68                  | 02N 44E 33 DQAC           | 09 13 73                        | Well   | 42              | 16.4                   | 1140           | 6.4                   |              | .04                    | 7.5                           | 567                                     |                                      | 21               | 2092                          |
| 70                  | 01N 33E 16 AD             | 09 09 16                        | Well   | 62              | 18                     | 1706*          |                       |              |                        | 18                            | 396                                     |                                      | 2480             | 105                           |
| 72                  | 01N 33E 27 B              | 09 18 16                        | Well   | 183             | 23                     | 72*            |                       | 2.4          |                        | 22                            | 317                                     |                                      | 28               | 392                           |
| 73                  | 01N 33E 28 CD             |                                 | Well   | 190             | 101                    | 1060           | 18                    | .17          |                        | 25                            | 338                                     |                                      | 135              | 2700                          |
| 74                  | 01N 33E 28 DDD            | 09 15 76                        | Pond   | 55              | 22.6                   | 140            | 13                    |              |                        | 144                           |   |                                      | 10.5             | 400                           |
| 75                  | 01N 33E 32 AB             |                                 | Well   | 188             | 81                     | 193            | 4.1                   | .12          |                        | 21                            | 347                                     |                                      | 21               | 900                           |
| 76                  | 01N 37E 06 ACAD           | 07 09 73                        | Well   | 4.4             | 188                    | 227            | 6                     | .01          |                        | 12.1                          | 383                                     | 76                                   | 6.5              | 830                           |
| 77                  | 01N 37E 13 CCAD           | 07 28 72                        | Spring | 138             | 95                     | 62             | 14.5                  | .05          | .01                    | 24.1                          | 222                                     |                                      | 6.9              | 950                           |
| 78                  | 01N 37E 15 C              | 07 21 73                        | Well   | 78.8            | 515                    | 644            | 29.6                  | .02          | .02                    | 17.2                          | 1288                                    | 139                                  | 26               | 2242                          |
| 79                  | 01N 37E 24 CACC           | 07 29 72                        | Well   | 65              | 66                     | 22             | 1.8                   |              |                        | 11                            | 444                                     |                                      | 7.1              | 97                            |
| 80                  | 01N 38E 22 CADD           | 06 29 73                        | Creek  | 105             | 276                    | 395            | 11.9                  | .02          | .01                    | 15.4                          | 579                                     |                                      | 5.8              | 1736                          |
| 81                  | 01N 38E 22 CCCC           | 07 18 72                        | Well   | 81              | 106                    | 235            | 4.8                   | 3.08         | .39                    | 8                             | 439                                     |                                      | 10.7             | 767                           |
| 82                  | 01N 38E 29 ADCA           | 07 21 72                        | Well   | 57              | 70                     | 21.8           | 2.9                   | .05          | .10                    | 10                            | 431                                     |                                      | 7.8              | 120                           |
| 83                  | 01N 38E 29 ADCA           | 07 21 72                        | Well   | 50              | 88                     | 25             | 2.7                   | .67          | .04                    | 11                            | 295                                     |                                      | 32               | 160                           |
| 84                  | 01N 38E 29 ADCA           | 07 31 72                        | Well   | 80              | 145                    | 81             | 3                     |              | .01                    | 9                             | 486                                     |                                      | 10.3             | 540                           |
| 85                  | 01N 38E 29 D868           | 08 11 72                        | Spring | 75              | 138                    | 48             | 10.1                  | .03          | .01                    | 4.8                           | 668                                     |                                      | 11.1             | 291                           |
| 86                  | 01N 38E 30 DADD           | 07 30 72                        | Spring | 24              | 73                     | 49             | 2.7                   |              | .02                    | 11                            | 444                                     | 10                                   | 1.7              | 76                            |
| 87                  | 01N 38E 30 DADD           | 07 30 72                        | Well   | 55              | 130                    | 51             | 2.6                   |              |                        | 11                            | 272                                     |                                      | 69               | 273                           |
| 88                  | 01N 38E 30 DDD            | 07 30 72                        | Well   | 25              | 68                     | 23             | 2.3                   |              |                        | 11                            | 357                                     |                                      | 3.7              | 86                            |
| 89                  | 01N 38E 05 CCB            | 07 05 73                        | Well   | 20              | 8.2                    | 745            | 4.1                   | .08          | .03                    | 6.4                           | 258                                     |                                      | 12.6             | 1402                          |
| 90                  | 01N 38E 22 DDDC           | 07 25 73                        | Spring | 121             | 249                    | 76.4           | 12.6                  | .02          | .01                    | 15                            | 685                                     |                                      | 5.5              | 916                           |
| 91                  | 01N 40E 02 BABD           | 07 24 73                        | Spring | 380             | 270                    | 65.4           | 10.5                  | .04          | .02                    | 19                            | 352                                     |                                      | 13.2             | 1852                          |
| 92                  | 01N 40E 02 BCAB           | 07 19 73                        | Well   | 46              | 34                     | 5.5            | 1.9                   | .02          | .01                    | 11                            | 234                                     |                                      | 7.0              | 58                            |
| 93                  | 01N 40E 02 CDDC           | 10 02 73                        | Well   | 110             | 107                    | 36.8           | 3.9                   |              |                        | 12.8                          | 376                                     |                                      | 3.7              | 463                           |
| 94                  | 01N 40E 12 CB8A           | 11 02 72                        | Well   | 105             | 160                    | 78             | 5.8                   | .08          | .01                    | 29                            | 447                                     |                                      | 4.6              | 890                           |
| 95                  | 01N 40E 13 CDDC           | 04 14 75                        | Well   | 265             | 277                    | 138            | 7.8                   | .02          | .02                    | 19.4                          | 673                                     |                                      | 6.5              | 1474                          |
| 96                  | 01N 40E 13 CDDC           | 05 29 75                        | Well   | 243             | 202                    | 76             | 7.4                   | .02          | .14                    | 15.5                          | 501                                     |                                      | 5.7              | 1037                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated.

\* Values reported as sodium plus potassium

## of Selected Waters (Con't.)

| Map<br>no. | Nitrate<br>(N) | Fluo-<br>ride<br>(F) | Field<br>pH | Lab<br>Temp.<br>C | Lab<br>specific<br>conductance<br>(umho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|------------|----------------|----------------------|-------------|-------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 50         | .858           | .3                   | 7.66        | 13                | 3076  | 2695                           | 1810                                      | 287   | 1.5                           | MBMG                 |                        | 125TGRV         | No                            | 74M224        |
| 51         | .271           | .2                   | 8.09        | 20                | 2220  | 1838                           | 1180                                      | 280   | 1.8                           | MBMG                 |                        |                 | No                            | 72M623        |
| 52         | .067           | .2                   | 8.23        | 25.5              | 2981  | 2533                           | 1630                                      | 387   | 2.3                           | MBMG                 |                        |                 | Yes                           | 73M560        |
| 53         | 4.292          | .2                   | 7.88        | 18                | 3560  | 3458                           | 2160                                      | 409   | 2.7                           | MBMG                 |                        |                 | No                            | 72M822        |
| 54         | 2.259          |                      | 7.87        |                   | 3770  | 3632                           | 2820                                      | 396   | 1.0                           | MBMG                 |                        |                 | No                            | 73M745        |
| 55         | 2.259          |                      | 7.69        |                   | 3510  | 3220                           | 2320                                      | 273   | 1.1                           | MBMG                 |                        |                 | No                            | 74M206        |
| 56         | .068           |                      | 7.84        |                   | 1786  | 1348                           | 776                                       | 445   | 2.4                           | MBMG                 |                        |                 | No                            | 74M205        |
| 57         | .067           |                      | 8.45        | 11.5              | 2058  | 1485                           | 217                                       | 274   | 12.2                          | MBMG                 |                        | 125TGRV         | No                            | 73M806        |
| 58         | .067           | .1                   | 8.29        | 11                | 2072  | 1708                           | 1150                                      | 180   | 1.4                           | USGS                 |                        | 125TGRV         | No                            | 73M805        |
| 59         | .158           |                      | 7.69        | 12                | 1680  | 1304                           | 938                                       | 352   | 1.1                           | USGS                 |                        | 125TGRV         | No                            | 73M9          |
| 60         | 2.485          | .3                   | 7.79        | 12                | 4390  | 4182                           | 2470                                      | 456   | 3.5                           | USGS                 |                        | 125TGRV         | No                            | 72M759        |
| 61         | .746           | .1                   | 7.73        | 11                | 3660  | 3424                           | 2030                                      | 411   | 3.0                           | USGS                 |                        |                 | No                            | 73M831        |
| 62         | 3.61           | .9                   | 7.83        | 11                | 4841  | 3181                           | 464                                       | 520   | 18.0                          | USGS                 |                        | 125TGRV         | No                            | 75M0591       |
| 63         | 1.107          | .1                   | 7.87        | 9.5               | 1650  | 1194                           | 304                                       | 276   | 7.2                           | USGS                 |                        |                 | No                            | 73M828        |
| 64         | 2.937          | .4                   |             | 13                | 2800  | 2142                           | 841                                       | 326   | 5.9                           | USGS                 |                        | 125TGRV         | No                            | 73M3          |
| 65         | .32            | 3.8                  | 8.25        | 13                | 1843  | 977                            | 10  | 689   | 56.0                          | USGS                 |                        | 125TGRV         | No                            | 75M0590       |
| 66         | .068           | .6                   | 7.80        | 11                | 2030  | 1682                           | 900                                       | 286   | 2.5                           | USGS                 |                        | 125TGRV         | No                            | 73M3          |
| 67         | .090           | .4                   | 7.82        | 11                | 4360  | 3245                           | 391                                       | 548   | 20.9                          | USGS                 |                        | 125TGRV         | No                            | 73M5          |
| 68         | 1.784          | .3                   | 8.26        | 12.5              | 4766  | 3607                           | 173                                       | 465   | 37.7                          | USGS                 |                        | 125TGRV         | No                            | 73M813        |
| 70         |                |                      |             |                   |   |                                | 229                                       | 325   |                               | USGS                 | 190                    | 2118RPW         | No                            | 18M0017       |
| 72         |                |                      |             |                   |   |                                | 552                                       | 260   |                               | USGS                 | 12                     | 110ALVM         | No                            | 16M0018       |
| 73         |                | .5                   | 7.50        | 9                 | 5470  | 4396                           | 890                                       | 277   | 15.5                          | USGS                 |                        |                 | No                            | 00M0026       |
| 74         | .05            |                      | 7.40        | 17                | 1100  | 712                            | 230                                       | 118   | 4.0                           | WGB                  |                        |                 | Yes                           | 76M2216       |
| 75         |                | .5                   | 7.30        | 8                 | 2010  | 1680                           | 804                                       | 285   | 3.0                           | USGS                 |                        |                 | No                            | 09M0027       |
| 76         | .068           |                      | 9.00        |                   | 2074  | 1539                           | 801                                       | 567   | 3.5                           | MBMG                 |                        |                 | No                            | 74M0121       |
| 77         | 2.485          | 1.3                  | 7.87        | 10.5              | 1450  | 1104                           | 738                                       | 182   | 1.0                           | MBMG                 |                        |                 | No                            | 72M0394       |
| 78         | 6.777          | .3                   | 8.70        | 2.3               | 4950  | 4333                           | 2320                                      | 1520  | 5.8                           | MBMG                 |                        |                 | No                            | 73M0591       |
| 79         | .587           | .4                   | 8.23        | 12                | 810   | 490                            | 436                                       | 364   | .5                            | MBMG                 |                        |                 | No                            | 72M0395       |
| 80         |                | .2                   | 8.12        |                   | 3425  | 2831                           | 1420                                      | 475   | 4.6                           | MBMG                 |                        |                 | No                            | 74M0118       |
| 81         |                | .3                   | 7.94        | 6                 | 1960  | 1432                           | 643                                       | 360   | 4.0                           | MBMG                 |                        |                 | No                            | 72M0423       |
| 82         | .678           | .2                   | 8.07        | 13.5              | 816   | 503                            | 435                                       | 353   | .5                            | MBMG                 |                        |                 | No                            | 72M0424       |
| 83         | 4.857          | .1                   | 8.06        | 10                | 925   | 570                            | 483                                       | 324   | .5                            | MBMG                 |                        |                 | No                            | 72M0425       |
| 84         | .565           | .3                   | 7.95        | 8                 | 1520  | 1110                           | 809                                       | 398   | 1.2                           | MBMG                 |                        |                 | No                            | 72M0421       |
| 85         | .633           | .2                   | 8.21        | 20.5              | 1340  | 908                            | 763                                       | 548   | .8                            | MBMG                 |                        |                 | No                            | 72M0618       |
| 86         | .813           | .1                   | 8.54        |                   | 742   | 467                            | 365                                       | 397   | 1.1                           | MBMG                 |                        |                 | No                            | 72M0401       |
| 87         | 49.700         |                      | 8.21        | 7.4               | 1360  | 775                            | 680                                       | 223   | .9                            | MBMG                 |                        |                 | No                            | 72M0399       |
| 88         | 1.107          | .1                   | 8.21        | 9.2               | 657   | 396                            | 349                                       | 293   | .5                            | MBMG                 |                        |                 | No                            | 72M0398       |
| 89         | .045           | .5                   | 8.18        | 12                | 3140  | 2226                           | 84  | 211   | 35.4                          | MBMG                 |                        | 125TGRV         | No                            | 73M647        |
| 90         | .067           | .4                   | 8.05        |                   | 2160  | 1735                           | 1340                                      | 592   | .9                            | USGS                 |                        | 125TGRV         | No                            | 73M660        |
| 91         | .135           | .3                   | 7.47        | 17                | 2930  | 2784                           | 2060                                      | 289   | .6                            | USGS                 |                        | 125TGRV         | No                            | 73M658        |
| 92         | 3.479          | .1                   | 7.87        | 9                 | 483   | 282                            | 257                                       | 192   | .1                            | USGS                 |                        | 125TGRV         | No                            | 73M657        |
| 93         | .158           | .2                   | 8.09        | 11                | 1258  | 923                            | 720                                       | 309   | .6                            | MBMG                 | 100                    | 125TGRV         | No                            | 74M0225       |
| 94         | 3.61           | .2                   | 7.82        | 10.5              | 1660  | 1296                           | 930                                       | 367   | 1.1                           | USGS                 |                        | 125TGRV         | No                            | 73M111        |
| 95         | .23            | .7                   | 7.87        | 13.5              | 2943  | 2520                           | 1810                                      | 552   | 1.4                           | MBMG                 | 195                    | 125FRUN         | No                            | 75M0314       |
| 96         | .29            | .1                   | 7.17        | 13                | 2326  | 1863                           | 1440                                      | 493   | .9                            | MBMG                 | 148                    | 125FRUN         | No                            | 75M0417       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Trect | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Sicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 97                 | 01N 40E 14 8888           | 10 03 73                        | Well   | 33              | 136                    | 79.2           | 7.6                   |              |                        | 13.5                          | 354                                     |                                      | 8.9              | 499                           |
| 98                 | 01N 40E 14 8888           | 10 03 73                        | Well   | 57              | 145                    | 93.8           | 8                     |              |                        | 12.7                          | 420                                     |                                      |                  | 585                           |
| 99                 | 01N 40E 15 8ACB           | 07 25 73                        | Creek  | 40              | 403                    | 230            | 19.5                  | .23          | 2.53                   | 14.1                          | 584                                     |                                      | 12.0             | 1722                          |
| 100                | 01N 40E 15 88DA           | 05 16 75                        | Well   | 243             | 265                    | 192.5          | 11                    | .05          | .37                    |                               | 707                                     |                                      | 25               | 1423                          |
| 101                | 01N 40E 15 8DBB           | 05 16 75                        | Well   | 137             | 182                    | 134.5          | 11.2                  | .07          | .21                    | 19.9                          | 645                                     |                                      | 28               | 782                           |
| 102                | 01N 40E 15 8DBD           | 05 16 75                        | Well   | 60              | 77                     | 117.5          | 11.5                  | 2.30         | .06                    | 36.2                          | 25                                      |                                      | 17.5             | 664                           |
| 103                | 01N 41E 01 ACAB           | 09 25 73                        | Well   | 73              | 72                     | 420            | 10.3                  |              |                        | 11.1                          | 597                                     |                                      | 7.9              | 870                           |
| 104                | 01N 41E 01 DDAC           | 09 25 73                        | Well   | 349             | 246                    | 127            | 25.1                  | .08          | .08                    | 22.9                          | 154                                     |                                      | 10.5             | 2008                          |
| 105                | 01N 41E 03 8888           | 07 25 73                        | Creek  | 188             | 270                    | 180            | 16.5                  | .29          | .78                    | 18.8                          | 585                                     |                                      | 13               | 1426                          |
| 106                | 01N 41E 03 CDOD           | 08 20 73                        | Well   | 12.8            | 145                    | 63.4           | 5                     | 2.7          | .22                    | 9.6                           | 256                                     | 18                                   | 8.6              | 490                           |
| 107                | 01N 41E 04 AAB8           | 05 16 75                        | Well   | 217             | 199                    | 160            | 7.7                   | .01          | .12                    | 20.6                          | 594                                     |                                      | 10.9             | 1139                          |
| 108                | 01N 41E 07 DBB8           | 10 03 73                        | Well   | 118             | 89                     | 27.3           | 3.9                   | .08          | .06                    | 39.5                          | 283                                     | 9                                    | 8.1              | 427                           |
| 109                | 01N 41E 10 AACD           | 05 16 75                        | Well   | 141             | 288                    | 93             | 6.1                   | .01          | .16                    | 12                            | 923                                     |                                      | 7.0              | 919                           |
| 110                | 01N 41E 10 AACD           | 05 28 75                        | Well   | 284             | 193                    | 220            | 13.1                  | .01          | .17                    | 11.1                          | 815                                     |                                      | 8.9              | 1280                          |
| 111                | 01N 41E 12 ADDD           | 09 25 73                        | Well   | 109             | 92                     | 56.8           | 5.1                   | .06          | .11                    | 14.7                          | 393                                     |                                      | 8.6              | 444                           |
| 112                | 01N 41E 12 CBDB           | 08 02 73                        | Well   | 62              | 184                    | 320            | 7.4                   | .10          | .05                    | 12                            | 303                                     |                                      | 12.0             | 1300                          |
| 113                | 01N 41E 13 CDCD           | 07 18 73                        | Well   | 154             | 177                    | 132            | 8                     | 2.9          | .21                    | 13                            | 555                                     |                                      | 6.0              | 926                           |
| 114                | 01N 41E 16 BAB            | 05 13 75                        | Well   | 73              | 68                     | 121.5          | 5.3                   |              |                        | 14.1                          | 562                                     |                                      | 4.1              | 289                           |
| 115                | 01N 41E 23 BDCD           | 08 09 73                        | Well   | 108             | 237                    | 206.3          | 8.6                   | .28          | .13                    | 15.9                          | 244                                     | 5                                    | 13.0             | 1428                          |
| 116                | 01N 41E 27 AADB           | 02 04 74                        | Well   | 302             | 384                    | 209            | 4.2                   | .02          | .02                    | 18.1                          | 437                                     |                                      | 13               | 2320                          |
| 117                | 01N 41E 27 AADD           | 02 04 74                        | Well   | 402             | 924                    | 500            | 7.8                   | .07          | .33                    | 15.4                          | 334                                     |                                      | 33               | 5294                          |
| 118                | 01N 41E 27 DAAC           | 02 04 74                        | Well   | 346             | 426                    | 173            | 9                     | .02          | .06                    | 13.9                          | 530                                     |                                      | 23               | 2456                          |
| 119                | 01N 42E 07 CBA            | 02 04 74                        | Well   | 341             | 486                    | 325            | 3.5                   |              | .02                    | 21.8                          | 377                                     |                                      | 56               | 3112                          |
| 120                | 01N 42E 10 CCDC           | 10 18 72                        | Well   | 246             | 325                    | 182            | 8.2                   | .14          | .01                    | 22                            | 319                                     |                                      | 16.5             | 1998                          |
| 121                | 01N 42E 17 BDDC           | 02 04 74                        | Well   | 176             | 232                    | 33.6           | 5.5                   |              | .07                    | 17.2                          | 601                                     |                                      | 7.4              | 936                           |
| 122                | 01N 42E 18 AAB8           | 09 25 73                        | Well   | 317             | 289                    | 60.4           | 8.8                   | 3.0          | 1.05                   | 17                            | 724                                     |                                      | 9.2              | 1440                          |
| 123                | 01N 42E 18 AAB8           | 02 04 74                        | Well   | 250             | 281                    | 57.3           | 7.8                   | .04          | .03                    | 18.2                          | 530                                     |                                      | 8.2              | 1404                          |
| 124                | 01N 42E 19 DBBA           | 08 02 73                        | Well   | 46              | 109                    | 170            | 5.6                   | .33          | .08                    | 12                            | 369                                     |                                      | 8.5              | 568                           |
| 125                | 01N 42E 22 CABD           | 09 06 73                        | Well   | 253             | 390                    | 513.8          | 11                    | 1.77         | .23                    | 10.7                          | 477                                     |                                      | 16.9             | 2790                          |
| 126                | 01N 42E 25 BDDC           | 09 06 73                        | Well   | 113             | 102                    | 817.5          | 12.7                  | .01          |                        | 8.7                           | 518                                     | 4                                    | 16.8             | 1920                          |
| 127                | 01N 42E 28 BDDC           | 08 09 73                        | Well   | 38              | 145                    | 202            | 7                     | .70          | .08                    | 11.8                          | 321                                     | 15                                   | 9.9              | 834                           |
| 128                | 01N 42E 33 ADBC           | 09 28 72                        | Well   | 111             | 122                    | 820            | 12                    | 3.08         | .14                    | 28                            | 615                                     |                                      | 15.8             | 1642                          |
| 129                | 01N 42E 34 ACAB           | 02 01 73                        | Well   | 30              | 9.5                    | 490            | 5                     | .02          | .03                    | 9                             | 454                                     |                                      | 10.2             | 758                           |
| 130                | 01N 43E 17 AACA           | 10 18 72                        | Well   | 5.0             | 2.1                    | 440            | 1.4                   | .28          | .01                    | 9                             | 480                                     |                                      | 13.2             | 565                           |
| 131                | 01N 43E 33 8888           | 10 01 73                        | Well   | 89              | 125                    | 73             | 8                     |              | .01                    | 25.2                          | 294                                     |                                      | 4.6              | 642                           |
| 132                | 01N 44E 04 DABD           | 06 13 75                        | Well   | 29              | 15.7                   | 1220           | 5.8                   | .02          | .04                    | 6.9                           | 795                                     |                                      | 42               | 1982                          |
| 133                | 01N 44E 07 AADA           | 11 29 72                        | Well   | 280             | 400                    | 470            | 6.8                   | .68          | .56                    | 11                            | 479                                     |                                      | 30               | 2815                          |
| 134                | 01N 44E 12 CBCA           | 09 12 73                        | Well   | 2.6             | .5                     | 507.5          | 1.7                   |              |                        | 10.1                          | 1042                                    | 39                                   | 83               | 73                            |
| 135                | 01N 44E 14 BDDC           | 09 25 73                        | Well   | 3.1             | .5                     | 510            | 1.6                   |              | .01                    | 8.7                           | 981                                     | 53                                   | 11.5             | 66                            |
| 136                | 01N 44E 29 ACBD           | 09 13 73                        | Well   | 114             | 98                     | 210            | 9.6                   |              |                        | 11.1                          | 203                                     |                                      | 10.3             | 948                           |
| 137                | 01N 44E 30 BDCA           | 09 13 73                        | Well   | 224             | 449                    | 427.5          | 2.4                   |              | .02                    | 14.7                          | 315                                     | 6                                    | 26               | 2992                          |
| 138                | 01N 44E 31 AABA           | 09 13 73                        | Well   | 3.2             | .6                     | 363.8          | 17                    |              |                        | 8.6                           | 449                                     | 34                                   | 13.9             | 332                           |
| 139                | 01N 44E 34 DDCB           | 09 29 72                        | Well   | 110             | 134                    | 442            | 13                    | .27          | .12                    | 13                            | 556                                     |                                      | 9.2              | 1278                          |
| 140                | 01S 31E 14 A8D            | 09 16 76                        | Seep   | 430             | 10500                  | 25300          | 210                   | .46          | .98                    |                               | 1556                                    |                                      | 2530             | 73000                         |
| 141                | 01S 31E 16 DA             | 09 16 76                        | Pond   | 257             | 366                    | 3890           | 62                    | .20          | .08                    |                               | 216                                     |                                      | 1215             | 6350                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated



## of Selected Waters (Con't.)

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluo-<br>rate<br>(F) | Lab<br>pH | Field<br>Temp.<br>C | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|---------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 97                 | 4.18           | 2                    | 0.19      |                     | 1344  | 956                            | 651                                       | 290   | 1.4                           | M&MG                 | 125TGRV                | No              |                               | 74M0213       |
| 98                 | 2.281          | 2                    | 8.04      | 10                  | 1524  | 1111                           | 750                                       | 344   | 1.5                           | M&MG                 | 125TGRV                | No              |                               | 74M212        |
| 99                 | .971           | 3                    | 8.27      | 26                  | 3130  | 2732                           | 1790                                      | 479   | 2.4                           | M&MG                 |                        | Yes             |                               | 73M589        |
| 100                | .11            | 3                    | 7.44      | 6                   | 3113  | 2508                           | 1710                                      | 580   | 2.0                           | M&MG                 | 125FRUN                | No              |                               | 75M0308       |
| 101                | .34            | 2                    | 7.48      | 7                   | 2179  | 1613                           | 1100                                      | 529   | 1.8                           | M&MG                 | 125FRUN                | No              |                               | 75M0308       |
| 102                | .56            |                      | 5.42      | 9                   | 1305  | 999                            | 469                                       | 21  | 2.4                           | M&MG                 | 125FRUN                | No              |                               | 75M0307       |
| 103                | .271           | 2                    | 7.89      |                     | 2350  | 1799                           | 483                                       | 490   | 8.3                           | M&MG                 |                        | Yes             |                               | 73M742        |
| 104                | .158           | 2                    | 7.95      |                     | 3140  | 2865                           | 1890                                      | 126   | 1.3                           | M&MG                 |                        | Yes             |                               | 73M743        |
| 105                | .497           | 2                    | 8.11      | 23                  | 2770  | 2403                           | 1590                                      | 481   | 2.0                           | M&MG                 |                        | Yes             |                               | 73M568        |
| 106                | .135           |                      | 8.49      | 11.5                | 1240  | 882                            | 642                                       | 271   | 1.1                           | USGS                 | 125TGRV                | No              |                               | 73M658        |
| 107                | .23            | 2                    | 7.46      | 9.5                 | 2537  | 2047                           | 1370                                      | 488   | 1.9                           | M&MG                 | 125FRUN                | No              |                               | 75M0306       |
| 108                | 4.518          | 2                    | 8.48      | 11                  | 1160  | 864                            | 663                                       |   | .5                            | M&MG                 | 125TGRV                | No              |                               | 74M215        |
| 109                | .25            |                      | 7.55      | 11                  | 2493  | 1921                           | 1560                                      | 757   | 1.0                           | M&MG                 | 125FRUN                | No              |                               | 75M0315       |
| 110                | .50            |                      | 7.70      | 10                  | 2930  | 2412                           | 1500                                      | 868   | 2.5                           | M&MG                 | 125FRUN                | No              |                               | 75M0418       |
| 111                | .135           | 3                    | 7.91      |                     | 1300  | 920                            | 652                                       | 314   | 1.0                           | M&MG                 |                        | No              |                               | 73M749        |
| 112                | .564           |                      | 8.10      | 15.5                | 2540  | 2047                           | 925                                       | 249   | 4.6                           | USGS                 | 125TGRV                | No              |                               | 73M667        |
| 113                | .045           | 2                    | 7.64      | 16                  | 2110  | 1693                           | 1120                                      | 456   | 1.7                           | USGS                 | 125TGRV                | No              |                               | 73M655        |
| 114                | .13            | 1                    | 7.73      | 13.5                | 1234  | 827                            | 466                                       | 453   | 2.5                           | M&MG                 | 125FRUN                | No              |                               | 75M0313       |
| 115                | .542           |                      | 8.16      | 19                  | 2544  | 2143                           | 1260                                      | 217   | 2.5                           | USGS                 |                        | No              |                               | 73M803        |
| 116                | 4.518          | 2                    | 7.74      |                     | 3800  | 3468                           | 2350                                      | 358   | 1.9                           | M&MG                 |                        | No              |                               | 74M208        |
| 117                | 7.161          |                      | 8.17      |                     | 7247  | 7450                           | 4860                                      | 274   | 3.1                           | M&MG                 |                        | No              |                               | 74M209        |
| 118                | .294           | 2                    | 7.66      |                     | 3948  | 3709                           | 2640                                      | 435   | 1.5                           | M&MG                 |                        | No              |                               | 74M207        |
| 119                | .045           |                      | 7.72      |                     | 4980  | 4531                           | 2880                                      | 309   | 2.6                           | M&MG                 |                        | No              |                               | 74M203        |
| 120                |                | 4                    | 7.97      | 10.5                | 3160  | 2955                           | 1970                                      | 261   | 1.8                           | USGS                 | 125TGRV                | No              |                               | 73M2          |
| 121                | .271           |                      | 7.79      |                     | 2173  | 1703                           | 1410                                      | 493   | .4                            | M&MG                 |                        | No              |                               | 74M201        |
| 122                | .293           | 1                    | 7.67      |                     | 2920  | 2482                           | 1910                                      | 594   | .8                            | M&MG                 |                        | Yes             |                               | 73M740        |
| 123                | 113            | 1                    | 7.67      |                     | 2720  | 2286                           | 1790                                      | 435   | .6                            | M&MG                 |                        | No              |                               | 74M200        |
| 124                | .067           | 2                    | 8.42      | 11                  | 1510  | 1116                           | 567                                       | 354   | 3.1                           | USGS                 | 125TGRV                | No              |                               | 73M668        |
| 125                | .203           | 2                    | 8.02      | 11                  | 4896  | 4213                           | 2220                                      | 391   | 4.8                           | USGS                 | 125TGRV                | No              |                               | 73M794        |
| 126                | .045           | 6                    | 8.34      |                     |   | 3250                           | 703                                       | 438   | 13.4                          | USGS                 | 125TGRV                | No              |                               | 73M802        |
| 127                | .112           | 2                    | 8.68      | 10                  | 1906  | 1422                           | 704                                       | 313   | 3.3                           | USGS                 | 125TGRV                | No              |                               | 73M801        |
| 128                | .023           | 5                    | 8.16      | 10                  | 3490  | 2808                           | 786                                       | 422   | 9.7                           | USGS                 | 125TGRV                | No              |                               | 72M755        |
| 129                | .858           | 6                    | 7.94      |                     | 2420  | 1537                           | 112                                       | 372   | 20.1                          | USGS                 | 125TGRV                | No              |                               | 73M60         |
| 130                | .226           | 2.2                  | 8.05      | 10.5                | 2050  | 1275                           | 21  | 394   | 41.6                          | USGS                 | 125TGRV                | No              |                               | 73M1          |
| 131                |                | 1                    | 7.85      | 10.5                | 1410  | 1112                           | 745                                       | 241   | 1.2                           | USGS                 | 110ALVM                | No              |                               | 73M824        |
| 132                | 1.94           | 9                    | 7.98      | 12                  | 5436  | 3696                           | 138                                       | 652   | 45.2                          | USGS                 | 125TGRV                | No              |                               | 75M0592       |
| 133                | 1.717          | 2                    | 7.73      | 11                  | 4530  | 4282                           | 2370                                      | 393   | 4.2                           | USGS                 | 125TGRV                | No              |                               | 73M15         |
| 134                | .067           | 6.0                  | 8.63      | 16                  | 1998  | 1237                           | 8   | 986   | 76.2                          | USGS                 | 125TLCK                | No              |                               | 73M808        |
| 135                | .135           | 6.0                  | 8.54      | 14.5                | 1994  | 1247                           | 10  | 962   | 70.2                          | USGS                 | 125TLCK                | No              |                               | 73M814        |
| 136                | 1.694          | 4                    | 8.28      | 11                  | 1946  | 1503                           | 692                                       | 167   | 3.5                           | USGS                 | 125TGRV                | No              |                               | 73M810        |
| 137                | .067           | 1                    | 8.49      | 19.5                | 4400  | 4319                           | 2430                                      | 279   | 3.8                           | USGS                 | 110ALVM                | No              |                               | 73M812        |
| 138                | .497           | 1.7                  | 8.88      | 13                  | 1552  | 481                            | 10  | 481   | 49.1                          | USGS                 | 125TGRV                | No              |                               | 73M811        |
| 139                | .068           | 5                    | 7.90      | 11.5                | 2630  | 2374                           | 631                                       | 456   | 6.7                           | USGS                 | 125TGRV                | No              |                               | 72M757        |
| 140                | 510            |                      | 8.20      | 17                  | 7200  | 113200                         | 44300                                     | 1276  | 52.3                          | WQ8                  |                        | Yes             |                               | 76W2218       |
| 141                | .30            |                      | 7.40      | 23                  | 14740                                       | 12250                          | 2150                                      | 177   | 36.5                          | WQ8                  |                        | Yes             |                               | 76W2217       |

## Chemical Analyses

| Map<br>ref. | Location<br>T R Sec Trect | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|-------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 142         | 01S 32E 02 BD             |                                 | Well   | 665             | 136                    |                | 24                    | 1.5          |                        | 18                            | 180                                     |                                      | 4                | 1980                          |
| 143         | 01S 33E 02 DDB            | 09 16 76                        | Ditch  | 91              | 150                    | 1016           | 17                    |              |                        |                               | 797                                     |                                      | 73               | 2300                          |
| 145         | 01S 33E 13 DD             | 11 23 37                        | Well   | 650             | 170                    | 53*            |                       |              |                        |                               | 92                                      |                                      | 10               | 2200                          |
| 146         | 01S 33E 14 AB             |                                 | Well   | 470             | 235                    | 1020           | 13                    | .11          |                        | 26                            | 603                                     |                                      | 143              | 3580                          |
| 147         | 01S 33E 14 DB             |                                 | Well   | 439             | 198                    | 906            | 13                    | .03          |                        | 27                            |   |                                      | 116              | 3250                          |
| 148         | 01S 33E 15 DD             |                                 | Well   | 249             | 124                    | 410            | 88                    | .13          |                        | 27                            | 290                                     |                                      | 33               | 1730                          |
| 150         | 01S 33E 18 BDD            | 09 16 76                        | Seep   | 480             | 17600                  | 49090          | 255                   | .57          | .33                    |                               | 1307                                    | 1650                                 |                  | 120000                        |
| 152         | 01S 33E 19 DA             |                                 | Well   | 138             | 583                    | 109*           |                       |              |                        | 20                            | 316                                     |                                      | 80               | 365                           |
| 153         | 01S 33E 19 DA             |                                 | Well   | 112             | 28                     | 122*           |                       | 1.2          |                        | 37                            | 406                                     |                                      | 43               | 249                           |
| 154         | 01S 33E 24 BC             |                                 | Well   | 315             | 137                    | 1380           | 20                    | .82          |                        | 28                            | 415                                     |                                      | 280              | 3580                          |
| 155         | 01S 33E 26 CB             |                                 | Well   | 142             | 50                     | 300            | 7.8                   |              |                        | 26                            | 347                                     |                                      | 30               | 885                           |
| 156         | 01S 33E 27 D              | 10 20 71                        | Well   | 103             | 39                     | 329*           |                       | .12          |                        | 28                            | 325                                     |                                      | 43               | 771                           |
| 157         | 01S 33E 30 A              | 10 10 21                        | Well   | 74              | 35                     | 70*            |                       | 1.3          |                        | 30                            | 270                                     |                                      | 20               | 202                           |
| 158         | 01S 37E 01 BAAC           | 09 11 73                        | Well   | 120             | 75                     | 378            | 11.3                  |              | 8.6                    | 358                           |   | 8.2                                  | 1090             |                               |
| 159         | 01S 37E 01 BAAD           | 09 11 73                        | Well   | 67              | 61                     | 632.5          | 6                     |              | 8.3                    | 337                           |   | 15.5                                 | 1476             |                               |
| 160         | 01S 38E 03 CACC           | 06 27 73                        | Well   | 25              | 51                     | 21.8           | 3.2                   |              |                        | 2                             | 284                                     | 1                                    | 2.4              | 84                            |
| 161         | 01S 38E 09 ACBB           | 07 18 72                        | Well   | 70              | 97                     | 45             | 2.4                   | 2.1          | .06                    | 13                            | 510                                     |                                      | 4.7              | 238                           |
| 162         | 01S 38E 09 BADD           | 07 18 72                        | Well   | 82              | 96                     | 82             | 4.3                   | 1.2          | .09                    | 15                            | 433                                     |                                      | 7.6              | 354                           |
| 163         | 01S 38E 09 BDCA           | 06 01 72                        | Well   | 104             | 140                    | 143            | 7.4                   |              | .01                    | 11                            | 256                                     |                                      | 8.8              | 901                           |
| 164         | 01S 38E 09 CAAA           | 08 01 72                        | Well   | 90              | 65                     | 182            | 4.3                   |              | .02                    | 16                            | 517                                     |                                      | 4.1              | 441                           |
| 166         | 01S 39E 12 DCBA           | 09 12 73                        | Spring | 83              | 147                    | 136            | 5.1                   | .70          | .07                    | 14.1                          | 644                                     |                                      | 4.8              | 596                           |
| 166         | 01S 40E 06 BBD            | 09 12 73                        | Spring | 14.7            | 132                    | 119            | 10.9                  | 1.35         | .03                    | 19.9                          | 350                                     | 30                                   | 5.4              | 495                           |
| 167         | 01S 40E 07 DADA           | 09 12 73                        | Well   | 42              | 122                    | 435            | 7.6                   |              |                        | 12.1                          | 235                                     |                                      | 5.5              | 1442                          |
| 168         | 01S 40E 08 AAAC           | 09 12 73                        | Spring | 54              | 215                    | 180            | 11.9                  | .33          | .03                    | 18.2                          | 372                                     | 19                                   | 7.6              | 1048                          |
| 169         | 01S 41E 02 AAB            | 09 07 73                        | Well   | 143             | 195                    | 158.5          | 10.1                  |              | .10                    | 16.6                          | 424                                     |                                      | 9.9              | 1112                          |
| 170         | 01S 41E 17 DAAA           | 12 01 72                        | Well   | 120             | 161                    | 296            | 4.8                   | .08          | .01                    | 19                            | 404                                     |                                      | 10.0             | 1214                          |
| 171         | 01S 41E 23 BACB           | 02 27 76                        | Well   | 5.8             | 2.0                    | 410            | 2.1                   | <.01         | .01                    | 7.1                           | 396                                     |                                      | 9.0              | 570.6                         |
| 172         | 01S 41E 32 CAB            | 10 27 72                        | Well   | 191             | 284                    | 290            | 9.1                   | 1.1          | .14                    | 18                            | 329                                     |                                      | 9.6              | 1930                          |
| 173         | 01S 41E 33 DBCB           | 10 27 72                        | Well   | 6.7             | 1.7                    | 410            | 2.1                   |              | .02                    | 10                            | 400                                     |                                      | 8.0              | 549                           |
| 174         | 01S 42E 04 DCAB           | 06 01 73                        | Well   | 87              | 255                    | 870            | 20.2                  | .09          | .18                    | 25                            | 557                                     | 20                                   | 33               | 2536                          |
| 175         | 01S 42E 04 DCA            | 08 01 73                        | Well   | 53              | 157                    | 745            | 27                    | .11          | .29                    | 24                            | 438                                     | 24                                   | 27               | 1920                          |
| 176         | 01S 43E 11 CAB            | 11 29 72                        | Well   | 132             | 119                    | 140            | 5                     | .04          | .05                    | 22                            | 470                                     |                                      | 7.1              | 706                           |
| 177         | 01S 44E 08 DCA            | 09 28 72                        | Well   | 127             | 135                    | 200            | 15                    | 1.15         | .13                    | 20                            | 376                                     |                                      | 6.5              | 971                           |
| 178         | 02S 32E 26 A              | 10 11 21                        | Well   | 91              | 54                     | 215*           |                       | .12          |                        | 35                            | 286                                     |                                      | 22               | 630                           |
| 179         | 02S 34E 09 BCC            | 09 16 76                        | Pond   | 210             | 435                    | 1650           | 35                    |              |                        |                               | 379                                     |                                      | 110              | 5350                          |
| 180         | 02S 41E 02 BABA           | 09 28 72                        | Spring | 28              | 18.5                   | 27.4           | 3                     | .05          |                        | 24                            | 183                                     |                                      | 3.8              | 51                            |
| 181         | 02S 41E 02 DABC           | 11 30 72                        | Well   | 259             | 313                    | 714            | 28.6                  | .04          | .28                    | 16                            | 648                                     |                                      | 20               | 2840                          |
| 182         | 02S 44E 12 BCCA           | 09 21 72                        | Spring | 45              | 47                     | 175            | 8.6                   |              |                        | 17                            | 503                                     |                                      | 5.6              | 285                           |
| 183         | 02S 44E 14 CB             | 09 21 72                        | Spring | 61              | 73                     | 77.5           | 6.2                   |              | .01                    | 21                            | 512                                     |                                      | 4.4              | 188                           |
| 184         | 03S 31E 21 AC             | 12 31 69                        | Well   |                 |                        | 570*           |                       |              |                        |                               | 1240                                    |                                      | 80               | 94                            |
| 185         | 03S 31E 34 BC             | 06 18 55                        | Well   | 630             | 130                    | 39*            |                       |              |                        |                               | 305                                     |                                      | 14               | 1800                          |
| 186         | 03S 32E 27 AAC            | 09 16 76                        | Creek  | 366             | 191                    | 1570           | 17                    |              |                        |                               | 306                                     |                                      | 180              | 3900                          |
| 187         | 03S 33E 08 BD             |                                 | Well   | 428             | 273                    | 1290           | 19                    | .08          |                        | 28                            | 493                                     |                                      | 111              | 4400                          |
| 188         | 03S 35E 18 DC             |                                 | Well   | 12              | 9                      | 625*           |                       | 1.0          |                        | 11                            | 383                                     | 35                                   | 32               | 954                           |
| 189         | 03S 35E 18 DCB            | 06 28 77                        | Well   | 4.8             | 1.3                    | 640            | 1.6                   | .06          | .01                    | 9.2                           | 435                                     | 12                                   | 25.9             | 940                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated  
 \* Values reported as sodium plus potassium

## of Selected Waters (Con't.)

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Field<br>Lab<br>pH | Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|--------------------|-------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 142                |                | 4.0             | 7.6                |             | 3040  |                                | 2220                                      | 148   | 1.3                           | USGS                 |                        |                 | No                            | 00M0028       |
| 143                | <.01           |                 | 7.8                | 20          | 4710  | 4038                           | 845                                       | 653   | 15.2                          | WQ8                  |                        | 331MDSN         | No                            | 78W2223       |
| 145                |                |                 |                    |             |   |                                | 2320                                      | 75  |                               | M8MG                 |                        |                 | No                            | 37M0003       |
| 146                |                | .3              | 7.1                | 8           | 6590  | 5784                           | 2140                                      | 495   | 9.6                           | USGS                 |                        |                 | No                            | 00M0029       |
| 147                |                | .4              | 7.0                | 10          | 5830  | 4951                           | 1910                                      |   | 9.0                           | USGS                 |                        |                 | No                            | 00M0030       |
| 148                |                | 4               | 7.3                | 7           | 3380  | 2804                           | 1130                                      | 238   | 5.3                           | USGS                 |                        |                 | No                            | 00M0031       |
| 150                | 186            |                 | 7.9                | 29          | 89970                                       | 18990                          | 7370                                      | 1070  | 78.7                          | WQ8                  |                        |                 | Yes                           | 78W2219       |
| 152                |                |                 |                    |             | 1600  |                                | 583                                       | 259   |                               | USGS                 |                        |                 | No                            | 00M0032       |
| 153                |                |                 |                    |             | 1200  |                                | 395                                       | 333   |                               | USGS                 |                        |                 | No                            | 00M0033       |
| 154                |                |                 | 7.2                | 11          | 7010  | 5946                           | 1350                                      | 340   | 16.3                          | USGS                 |                        |                 | No                            | 00M0034       |
| 155                |                | .7              | 7.2                | 11          | 2190  | 1754                           | 562                                       | 285   | 5.5                           | USGS                 |                        |                 | No                            | 00M0036       |
| 156                |                |                 |                    |             |   |                                | 417                                       | 267   |                               | USGS                 | 37                     | 110ALVM         | No                            | 21M0104       |
| 157                |                |                 |                    |             |   |                                | 328                                       | 221   |                               | USGS                 | 18                     | 110TRRC         | No                            | 21M0106       |
| 158                | 1.243          | .1              | 7.99               | 11          | 2380  | 1869                           | 611                                       | 294   | 6.7                           | M8MG                 |                        | 125TGRV         | No                            | 74M0037       |
| 159                | .407           | .2              | 8.20               | 11          |   | 2433                           | 421                                       | 276   | 13.4                          | M8MG                 |                        | 125TGRV         | No                            | 74M0116       |
| 160                | .926           | .2              | 8.35               | 12          | 578   | 331                            | 274                                       | 237   | .8                            | M8MG                 |                        |                 | No                            | 74M0105       |
| 161                |                | .1              | 8.27               | 9.2         | 1060  | 724                            | 579                                       | 418   | .8                            | M8MG                 |                        |                 | No                            | 72M0420       |
| 162                |                |                 | 7.86               | 10          | 1230  | 846                            | 604                                       | 355   | 1.1                           | M8MG                 |                        |                 | No                            | 72M0419       |
| 163                | .855           | 8               | 8.04               | 10          | 1780  | 1448                           | 843                                       | 210   | 2.2                           | M8MG                 |                        |                 | No                            | 72M0403       |
| 164                | .361           | .1              | 8.12               | 11          | 1370  | 1056                           | 493                                       | 424   | 3.6                           | M8MG                 |                        |                 | No                            | 72M0404       |
| 165                | .135           | .2              | 7.87               | 13          | 1834  | 1304                           | 818                                       | 528   | 2.1                           | USGS                 |                        | 125TGRV         | No                            | 73M799        |
| 166                |                | .1              | 8.76               | 11          | 1424  | 1001                           | 592                                       | 389   | 2.1                           | USGS                 |                        | 110ALVM         | No                            | 73M797        |
| 167                | .745           |                 | 8.23               | 13          | 2906  | 2233                           | 735                                       | 193   | 7.0                           | USGS                 |                        | 125TGRV         | No                            | 73M798        |
| 168                | .564           | .1              | 8.40               | 12.5        | 2226  | 1738                           | 1030                                      | 367   | 2.5                           | USGS                 |                        | 110ALVM         | No                            | 73M796        |
| 169                | .361           | .1              | 8.01               |             | 2346  | 1854                           | 1170                                      | 347   | 2.0                           | USGS                 |                        | 125TGRV         | No                            | 73M795        |
| 170                | .836           | .1              | 7.93               | 10.5        | 2420  | 2024                           | 970                                       | 331   | 4.1                           | USGS                 |                        | 125TGRV         | No                            | 73M18         |
| 171                | .553           | .5              | 8.24               | 12.5        | 1820  | 1203                           | 23  | 325   | 37.4                          | USGS                 |                        | 125TGRV         | No                            | 76M0119       |
| 172                |                | .2              | 7.89               | 12          | 3220  | 2895                           | 1660                                      | 270   | 3.1                           | USGS                 |                        | 125TGRV         | No                            | 73M6          |
| 173                | .181           | .9              | 7.83               |             | 1870  | 1186                           | 24  | 328   | 36.6                          | USGS                 |                        | 125TGRV         | No                            | 73M7          |
| 174                | 9.036          | .5              | 8.33               | 11.5        | 4820  | 4129                           | 1290                                      | 524   | 10.6                          | USGS                 |                        | 125TGRV         | No                            | 73M665        |
| 175                | 6.212          | 4               | 8.60               | 13          | 3970  | 3200                           | 791                                       | 440   | 11.6                          | USGS                 |                        | 125TGRV         | No                            | 73M668        |
| 176                | .633           | .2              | 7.98               | 9.5         | 1740  | 1364                           | 824                                       | 386   | 2.1                           | USGS                 |                        | 125TGRV         | No                            | 73M16         |
| 177                | .023           | .6              | 7.86               | 11          | 2050  | 1662                           | 876                                       | 308   | 2.9                           | USGS                 |                        | 125TGRV         | No                            | 72M756        |
| 178                |                |                 |                    |             |   |                                | 449                                       | 234   |                               |                      | 21                     | 110TRRC         | No                            | 21M0106       |
| 179                | <.01           |                 | 8.0                | 22          | 8330  | 8163                           | 2320                                      | 311   | 14.9                          | WQ8                  |                        |                 | No                            | 78W2221       |
| 180                |                | 1.4             | 7.68               | 8           | 377   | 248                            | 149                                       | 150   | 1.0                           | USGS                 |                        | 125TGRV         | No                            | 72M754        |
| 181                | .045           | .4              | 7.65               | 11.5        | 4800  | 4511                           | 1950                                      | 531   | 7.1                           | USGS                 |                        | 125TGRV         | No                            | 73M17         |
| 182                | .713           | 1.2             | 8.05               | 11.5        | 1190  | 812                            | 307                                       | 412   | 4.4                           | USGS                 |                        | 125TGRV         | No                            | 72M753        |
| 183                |                | 1.0             | 7.99               | 12          | 1020  | 684                            | 453                                       | 420   | 1.6                           | USGS                 |                        | 125TGRV         | No                            | 72M752        |
| 184                |                |                 | 8.2                |             |   |                                |   | 1020  |                               | M8MG                 |                        | 217LKOT         | No                            | 88M0006       |
| 185                |                |                 | 7.1                |             | 3106  |                                | 2110                                      | 250   |                               | M8MG                 |                        | 331MDSN         | No                            | 55M0005       |
| 186                | <.01           |                 | 8.1                | 22          | 6454  | 6561                           | 1700                                      | 251   | 18.6                          | WQ8                  |                        |                 | No                            | 78W2222       |
| 187                |                | .5              | 7.1                | 11          | 7520  | 6792                           | 2190                                      | 404   | 12.0                          | USGS                 |                        |                 | No                            | 00M0035       |
| 188                |                |                 |                    |             |   |                                | 67  | 381   |                               | USGS                 |                        |                 | No                            | 00M0037       |
| 189                | <.023          | .2              | 8.66               | 10          | 2667  | 1849                           | 17  | 377   | 66.9                          | USGS                 |                        |                 | No                            | 78M0002       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|-----------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 190                | 03S 35E 18 DCDB           | 06 28 77                        | River     | 54              | 26                     | 22.8           | 1.8                   | .22          | .01                    | 5.5                           | 216                                     | 3.1                                  | 1.7              | 99                            |
| 192                | 03S 44E 11 BCAD           | 04 29 75                        | Well      | 3.6             | .3                     | 404            | 2                     | .01          |                        | 7.7                           | 947                                     | 80                                   |                  | .3                            |
| 193                | 03S 44E 33 BDAA           | 06 05 75                        | Well      | 2.2             | .4                     | 327.5          | 1.7                   |              |                        | 7.7                           | 842                                     | 34                                   |                  | .1                            |
| 194                | 03S 45E 32 ODA            | 02 26 78                        | Well      | .8              | 1.5                    | 348            | 1.7                   | .04          | <.01                   | 7.6                           | 834                                     | 69.1                                 |                  | .5                            |
| 196                | 04S 32E 02 AA             |                                 | Well      | 524             | 2249                   | 1000           | 10                    | .09          |                        | 27                            | 455                                     | 155                                  |                  | 3930                          |
| 196                | 04S 32E 16 DBB            | 09 16 76                        | Creek     | 244             | 85                     | 79             | 5.4                   |              |                        |                               | 139                                     |                                      | 8.5              | 960                           |
| 197                | 04S 32E 23 DC             |                                 | Well      | 419             | 84                     | 200            | 6.3                   | 1.3          |                        | 22                            | 446                                     | 24                                   |                  | 1360                          |
| 198                | 04S 32E 23 DC             | 10 18 21                        | Well      | 286             | 114                    | 275*           |                       | 1.5          |                        | 24                            | 425                                     | 22                                   |                  | 1380                          |
| 199                | 04S 32E 26 BD             |                                 | Well      | 213             | 189                    | 490            | 9.2                   | .14          |                        | 26                            | 471                                     | 38                                   |                  | 1930                          |
| 200                | 04S 32E 38 BD             |                                 | Well      | 259             | 82                     | 168            | 5.9                   | .34          |                        | 20                            | 457                                     | 16                                   |                  | 938                           |
| 201                | 04S 32E 38 BD             |                                 | Well      | 377             | 121                    | 197            | 6.8                   | .17          |                        | 24                            | 516                                     | 19                                   |                  | 1330                          |
| 202                | 04S 45E 04 BDA            | 10 18 76                        | Creek     | 43.7            | 170                    | 380            | 20                    |              |                        | 10                            | 319                                     | 19                                   |                  | 1130                          |
| 203                | 06S 31E 35 CC             |                                 | Well      | .3              | .4                     | 186            | .8                    | .3           |                        |                               |   |                                      | 7.9              | 125                           |
| 204                | 06S 31E 38 DB             |                                 | Well      | 55              | 41                     | 148            | 3.3                   | .08          |                        | 25                            | 304                                     | 11                                   |                  | 366                           |
| 205                | 06S 32E 11 BB             |                                 | Well      | 458             | 282                    | 775            | 14                    | .16          |                        | 30                            | 430                                     | 85                                   |                  | 3450                          |
| 206                | 06S 32E 20 BA             |                                 | Well      | 168             | 71                     | 118            | 4.5                   | .18          |                        | 27                            | 458                                     | 17                                   |                  | 550                           |
| 207                | 06S 43E 16 DOCC           | 05 01 75                        | Creek     | 59              | 62                     | 60             | 9.1                   | .01          |                        | 12.8                          | 367                                     | 17                                   | 4.5              | 190                           |
| 208                | 06S 32E 27 CD             | 10 06 67                        | Well      | 230             | 75                     | 5*             |                       |              |                        |                               | 190                                     | 12                                   |                  | 700                           |
| 209                | 06S 32E 34 ABB            | 08 07 61                        | Well      | 640             | 70                     | 37*            |                       |              |                        |                               | 253                                     | 16                                   |                  | 1700                          |
| 210                | 06S 32E 34 ACC            | 08 08 61                        | Well      | 170             | 64                     | 11*            |                       |              |                        |                               | 190                                     | 12                                   |                  | 610                           |
| 211                | 06S 34E 13                | 11 18 75                        | Creek     | 240             | 227                    | 553            | 6.9                   |              |                        |                               | 544                                     | 22.5                                 |                  | 2160                          |
| 213                | 06S 43E 19 DD             | 06 01 72                        | Creek     | 98              | 152                    | 405            | 15                    | .01          | .16                    | 12                            | 624                                     | 15                                   |                  | 1212                          |
| 214                | 06S 43E 25 AADB           | 05 01 75                        | Creek     | 69              | 50                     | 68.5           | 7.7                   | .02          | .01                    | 15.9                          | 410                                     | 3.7                                  |                  | 181                           |
| 215                | 06S 46E 11 AA             | 06 16 84                        | Well      | 230             | 34                     | 110*           |                       |              |                        |                               | 232                                     | 40                                   |                  | 860                           |
| 216                | 09S 40E 15 DCB            | 05 27 72                        | Ditch     | 26              | 29                     | 587            | 6.8                   | .26          |                        | 22.7                          | 1088                                    | 8                                    | 16.5             | 569                           |
| 217                | 09S 40E 16 ABCA           | 06 21 72                        | Well      | 13.6            | 5.8                    | 515            | 8.1                   | .14          | .02                    | 14                            | 1258                                    | 70                                   | 10.6             | 21                            |
| 218                | 09S 40E 16 ABCA           | 06 21 72                        | Well      | 11.2            | 3.8                    | 524            | 5.6                   | .02          | .01                    | 12.8                          | 1412                                    |                                      | 11.7             | 19                            |
| 219                | 09S 40E 16 ABCA           | 06 22 72                        | Well      | 9.7             | 3.7                    | 525            | 5.6                   | .09          | .02                    | 10.7                          | 1241                                    | 77                                   | 8.2              | 17.2                          |
| 220                | 09S 40E 16 ABCE           | 06 21 72                        | Well      | 7.4             | 10.9                   | 664            | 7.2                   |              | .01                    | 14                            | 1568                                    | 62                                   | 13               | 127                           |
| 221                | 09S 40E 16 ABCE           | 06 21 72                        | Well      | 5.5             | 2.1                    | 450            | 3.9                   |              |                        | 8.5                           | 1003                                    | 83                                   | 5.2              | 14.6                          |
| 222                | 09S 40E 16 ABCE           | 06 21 72                        | Well      | 3.6             | 1                      | 393            | 3.7                   |              |                        | 8.5                           | 987                                     | 31                                   | 5.5              | 8.6                           |
| 223                | 09S 40E 16 ABCE           | 06 21 72                        | Well      | 4.4             | 1.3                    | 438            | 3.8                   |              | .01                    | 8.5                           | 1174                                    |                                      | 6.1              | .6                            |
| 224                | 09S 40E 16 ABCE           | 06 21 72                        | Well      | 21              | 8.8                    | 659            | 6.9                   | .18          | .02                    | 12.8                          | 1560                                    | 61                                   | 14.2             | 101                           |
| 225                | 09S 40E 16 ABCE           | 06 22 72                        | Well      | 3.4             | 1.6                    | 434            | 3.6                   |              | .02                    | 8.6                           | 1166                                    |                                      | 6.3              | 3.6                           |
| 226                | 09S 40E 16 ABCE           | 06 22 72                        | Well      | 18.8            | 8.3                    | 682            | 7.1                   | .04          | .02                    | 12.8                          | 1742                                    |                                      | 16.9             | 113                           |
| 227                | 09S 40E 16 ABCE           | 06 22 72                        | Well      | 3.4             | 1.5                    | 427            | 3.6                   |              | .01                    | 6.5                           | 1137                                    |                                      | 5.7              | 2.2                           |
| 228                | 09S 40E 22 DBAD           | 07 27 72                        | Drum      | 47              | 41                     | 42             | 3.5                   |              |                        | 5                             | 173                                     | 12                                   | 4.5              | 198                           |
| 229                | 09S 40E 29 CCAD           | 07 27 72                        | Well      | 3.2             | 1.6                    | 455            | 3.7                   |              |                        | 8                             | 985                                     | 102                                  | 14.4             | 22                            |
| 230                | 09S 41E 10 CC             | 06 10 76                        | Creek     | 222             | 297                    | 730            | 16                    | 1.1          | .16                    |                               | 476                                     | 15                                   |                  | 2830                          |
| 231                | 09S 44E 2                 | 06 01 72                        | Reservoir | 81              | 83                     | 118            | 6                     |              |                        |                               | 200                                     | 7                                    | 5                | 607                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## of Selected Waters (Con't.)

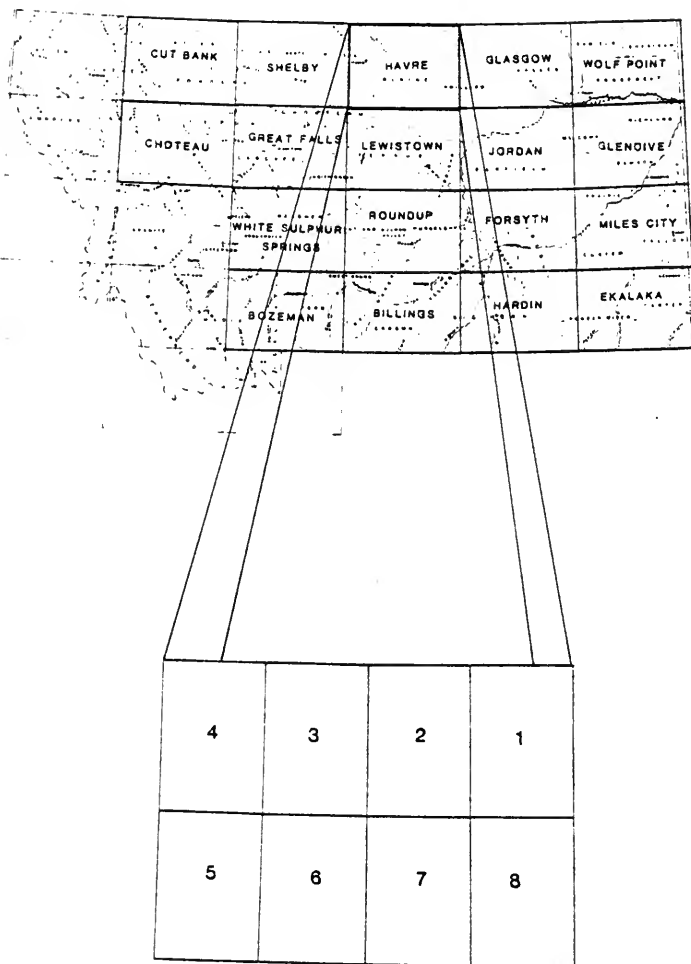
| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 190                | <.023          | .1              | 8.41      | 28                   | 518   | 322                            | 242                                       | 182   | .7                            | USGS                 |                        |                 | No                            | 78M0003       |
| 192                | .068           | 4.7             | 8.21      | 11                   | 1610  | 969                            | 10  | 777   | 54.5                          | USFS                 |                        |                 | Yes                           | 78M0194       |
| 193                | .090           | 1.5             | 8.19      | 12.5                 | 1318  | 790                            | 7   | 690   | 53.1                          | USGS                 | 300                    |                 | No                            | 75M0603       |
| 194                | .086           | 1.3             | 8.15      |                      | 1390  | 842                            | 8   | 684   | 52.8                          | USGS                 | 372                    | 125TGRV         | No                            | 76M0114       |
| 195                |                | .5              | 7.0       | 13                   | 6670  | 8120                           | 2330                                      | 373   | 4.2                           | USGS                 |                        |                 | No                            | 00M0038       |
| 196                | .10            |                 | 7.8       | 23                   | 2535  | 1451                           | 960                                       | 114   | 1.1                           | WQB                  |                        |                 | No                            | 78W2220       |
| 197                |                | .6              | 7.0       | 12                   | 2720  | 2337                           | 1390                                      | 3377  | 2.3                           | USGS                 |                        |                 | No                            | 00M0018       |
| 198                |                |                 |           |                      |   |                                | 1180                                      | 349   |                               | USGS                 |                        |                 | No                            | 21M0107       |
| 199                |                | .7              | 7.3       | 10                   | 3780  | 3128                           | 1310                                      | 396   | 5.9                           | USGS                 | 45                     | 110ALVM         | No                            | 00M0017       |
| 200                |                | .5              | 7.1       | 10.5                 | 2130  | 1715                           | 982                                       | 375   | 2.3                           | USGS                 |                        |                 | No                            | 00M0018       |
| 201                |                | .6              | 6.9       | 11.5                 | 2690  | 2330                           | 1440                                      | 423   | 2.3                           | USGS                 |                        |                 | No                            | 00M0018       |
| 202                |                |                 | 8.5       |                      | 2689  | 2033                           | 810                                       | 459   | 5.8                           | WQB                  |                        |                 | No                            | 76W2581       |
| 203                |                | 1.4             | 8.0       | 20                   | 825   | 488                            | 2   | 262   | 52.3                          | USGS                 |                        |                 | No                            | 00M0020       |
| 204                |                | .7              | 7.5       | 9                    | 1180  | 799                            | 304                                       | 249   | 3.7                           | USGS                 |                        |                 | No                            | 00M0021       |
| 205                |                | .6              | 7.1       | 10                   | 6030  | 5287                           | 2300                                      | 353   | 7.0                           | USGS                 |                        |                 | No                            | 00M0022       |
| 206                |                | .4              | 7.2       | 9                    | 1640  | 1182                           | 712                                       | 378   | 1.9                           | USGS                 |                        |                 | No                            | 00M0023       |
| 207                | .045           | 1.4             | 8.6       | 13                   | 917   | 597                            | 405                                       | 358   | 1.3                           | USFS                 |                        |                 | Yes                           | 75M0182       |
| 208                |                |                 | 7.6       |                      |   | 883                            | 156                                       |   |                               | M8MG                 | 331MDSN                |                 | No                            | 67M0006       |
| 209                |                |                 | 7.7       |                      |   | 1890                           | 208                                       |   |                               | M8MG                 | 320AMSD                |                 | No                            | 61M0001       |
| 210                |                |                 | 7.6       |                      |   | 668                            | 158                                       |   |                               | M8MG                 | 331MDSN                |                 | No                            | 61M0003       |
| 211                | .45            |                 | 8.2       |                      | 4330  | 3744                           | 1540                                      | 446   | 6.1                           | WQB                  |                        |                 | No                            | 75W2282       |
| 213                |                | 1.0             | 8.26      | 24.5                 | 2845  | 2218                           | 877                                       | 512   | 8.0                           | USGS                 |                        |                 | No                            | 72M239        |
| 214                | .316           | 1.1             | 8.21      | 5                    | 925   | 599                            | 378                                       | 336   | 1.5                           | USFS                 |                        |                 | Yes                           | 75M0191       |
| 215                |                |                 | 8.2       |                      | 1847  |                                | 714                                       | 190   |                               | M8MG                 | 337MSNC                |                 | No                            | 84M0026       |
| 218                | .203           | 1.2             | 8.52      |                      | 2670  | 1790                           | 168                                       | 912   | 18.7                          | M8MG                 |                        |                 | No                            | 72M0147       |
| 217                | 3.615          | 2.0             | 8.8       |                      | 2020  | 1282                           | 58  | 1260  | 29.4                          | M8MG                 | 125FRUN                |                 | No                            | 72M0252       |
| 218                | .068           | 2.5             | 8.16      |                      | 1850  | 1288                           | 43  | 1160  | 34.5                          | M8MG                 | 125FRUN                |                 | No                            | 72M0258       |
| 219                | 4.292          | 2.5             | 8.8       |                      | 1920  | 1275                           | 39  | 1280  | 36.3                          | M8MG                 | 135                    | 125FRUN         | No                            | 72M0262       |
| 220                | 5.422          | .9              | 8.53      |                      | 2520  | 1684                           | 64  | 1490  | 36.3                          | M8MG                 | 207                    | 125FRUN         | No                            | 72M0253       |
| 221                |                | 3.5             | 8.37      |                      | 1830  | 1075                           | 22  | 1100  | 41.4                          | M8MG                 | 135                    | 125FRUN         | No                            | 72M0254       |
| 222                | 2.937          | 4.6             | 8.37      | 14.3                 | 1480  | 949                            | 13  | 912   | 47.1                          | M8MG                 | 207                    | 125FRUN         | No                            | 72M0225       |
| 223                | .068           | 3.6             | 8.17      | 12.5                 | 1660  | 1046                           | 19  | 963   | 44.0                          | M8MG                 | 135                    | 125FRUN         | No                            | 72M0267       |
| 224                | .068           | 1.4             | 8.78      |                      | 2520  | 1655                           | 89  | 1480  | 30.4                          | M8MG                 |                        | 125FRUN         | No                            | 72M0259       |
| 225                | .045           | 3.5             | 8.19      | 12.5                 | 1620  | 1039                           | 15  | 957   | 48.4                          | M8MG                 | 135                    | 125FRUN         | No                            | 72M0260       |
| 226                | .068           | 1.4             | 8.03      |                      | 2510  | 1718                           | 80  | 1430  | 33.1                          | M8MG                 | 136                    | 125FRUN         | No                            | 72M0261       |
| 227                | .587           | 3.6             | 8.2       |                      | 1590  | 1014                           | 15  | 933   | 48.3                          | M8MG                 | 135                    | 125FRUN         | No                            | 72M0264       |
| 228                | .181           | .3              | 8.8       | 24                   | 669   | 439                            | 288                                       | 182   | 1.1                           | M8MG                 |                        |                 | No                            | 72M0397       |
| 229                |                | 2.2             | 9.5       | 10.9                 | 1740  | 1097                           | 14  | 1150  | 52.2                          | M8MG                 |                        |                 | No                            | 72M0396       |
| 230                | .04            | .3              | 7.7       |                      | 5350  | 4345                           | 1780                                      | 389   | 7.5                           | WQB                  |                        |                 | Yes                           | 76W1003       |
| 231                |                | .05             | 8.6       | 20.5                 | 1380  | 1006                           | 547                                       | 189   | 2.2                           | USGS                 |                        |                 | No                            | 72M0235       |

## HARDIN 1° x 2° Sheet

### Trace Elements Analyses Sheet

| Map no. | Location<br>T R Sec Tract | Alt.<br>min<br>m | Ant.<br>min<br>m | Ar.<br>min<br>m | Brv.<br>min<br>m | Qtr.<br>min<br>m | Cup.<br>min<br>m | Lead<br>min<br>m | Lith.<br>min<br>m | Mer.<br>min<br>m | Nickel<br>min<br>m | Total<br>min<br>m | Selenium<br>min<br>m | Silver<br>min<br>m | Stron-<br>min<br>m | Tm<br>min<br>m | Zinc<br>min<br>m | Lab<br>number |
|---------|---------------------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|-------------------|------------------|--------------------|-------------------|----------------------|--------------------|--------------------|----------------|------------------|---------------|
| 7       | 03N 41E 78 CCDD           |                  |                  |                 |                  | .6               | .01              | .04              | .02               | .2               | <.2                | .05               | 17                   |                    |                    |                | .02              | 73M593        |
| 44      | 02N 41E 09 EBCB           |                  |                  |                 |                  | 1                | .01              | .02              | <.01              | .1               | <.2                | <.05              | 10                   |                    |                    |                | .02              | 73M592        |
| 49      | 02N 41E 27 ECCC           |                  |                  |                 |                  | 1.3              | .01              | .02              | <.01              | .15              | 1.2                | <.05              | .06                  |                    |                    |                | .02              | 73M591        |
| 52      | 02N 41E 34 B              |                  |                  |                 |                  | 2                | <.01             | <.02             | <.01              | .1               | .2                 | <.05              | .07                  |                    |                    |                | .02              | 73M590        |
| 74      | 01N 32E 28 DD             | 2                |                  |                 |                  |                  | <.001            | <.01             | <.01              | <.2              | <.05               |                   |                      | <.05               |                    |                | .02              | 76W2216       |
| 89      | 01N 40E 15 BACB           |                  |                  |                 |                  |                  | .01              | .02              | .01               | .1               | <.2                | <.05              | .33                  |                    |                    |                | .01              | 73M589        |
| 104     | 01N 41E 01 ACAB           |                  |                  |                 |                  | .54              | .01              | .02              | <.02              | <.02             | <.05               | <.05              | <.06                 |                    |                    |                | <.02             | 73M742        |
| 104     | 01N 41E 01 DDAC           |                  |                  |                 |                  | 1.17             | .01              | <.02             | <.02              | <.06             | <.06               | <.06              |                      |                    |                    | <.02           | 73M743           |               |
| 105     | 01N 41E 03 BBBB           |                  |                  |                 |                  | .2               | <.01             | .02              | .01               | .1               | <.2                | <.05              | .07                  |                    |                    |                | .01              | 73M588        |
| 122     | 01N 42E 18 AAAB           |                  |                  |                 |                  | 1.23             | .01              | <.02             | .02               | .06              | <.05               | <.05              |                      |                    |                    | .04            | 73M740           |               |
| 140     | 01N 31E 14 ABAB           | <1.0             |                  |                 |                  | <.001            |                  | .23              | .07               | <.2              | .12                |                   |                      |                    |                    |                | .02              | 76W2218       |
| 33      | 01S 31E 16 DA             |                  |                  |                 |                  | <.001            | .02              | <.06             | <.2               | <.2              | <.05               |                   |                      |                    |                    | .05            | .02              | 76W2219       |
| 150     | 01S 33E 18 DD             | 1                |                  |                 |                  | <.001            | <.04             | <.06             | <.2               | <.2              | <.05               |                   |                      |                    |                    | .05            | .05              | 75M0194       |
| 192     | 03S 44E 11 BCAD           |                  |                  |                 |                  | .01              | <.01             | <.06             |                   |                  |                    |                   |                      |                    |                    | .01            | .01              | 75M0192       |
| 207     | 05S 43E 10 DDCC           | <2.0             |                  |                 |                  | <.01             |                  | <.01             | <.06              |                  |                    |                   |                      |                    |                    |                |                  |               |
| 214     | 06S 42E 25 ACAB           | 2.8              |                  |                 |                  | <.01             | <.01             | <.05             | <.2               | <.2              |                    |                   | <.10                 |                    |                    | .01            | .01              | 75M0191       |
| 230     | 09S 41E 10 CC             |                  |                  |                 |                  | .088             | <.001            | <.05             | <.01              |                  |                    |                   |                      |                    |                    | <.01           | <.01             | 76W1003       |

# LOCATION BASE MAP



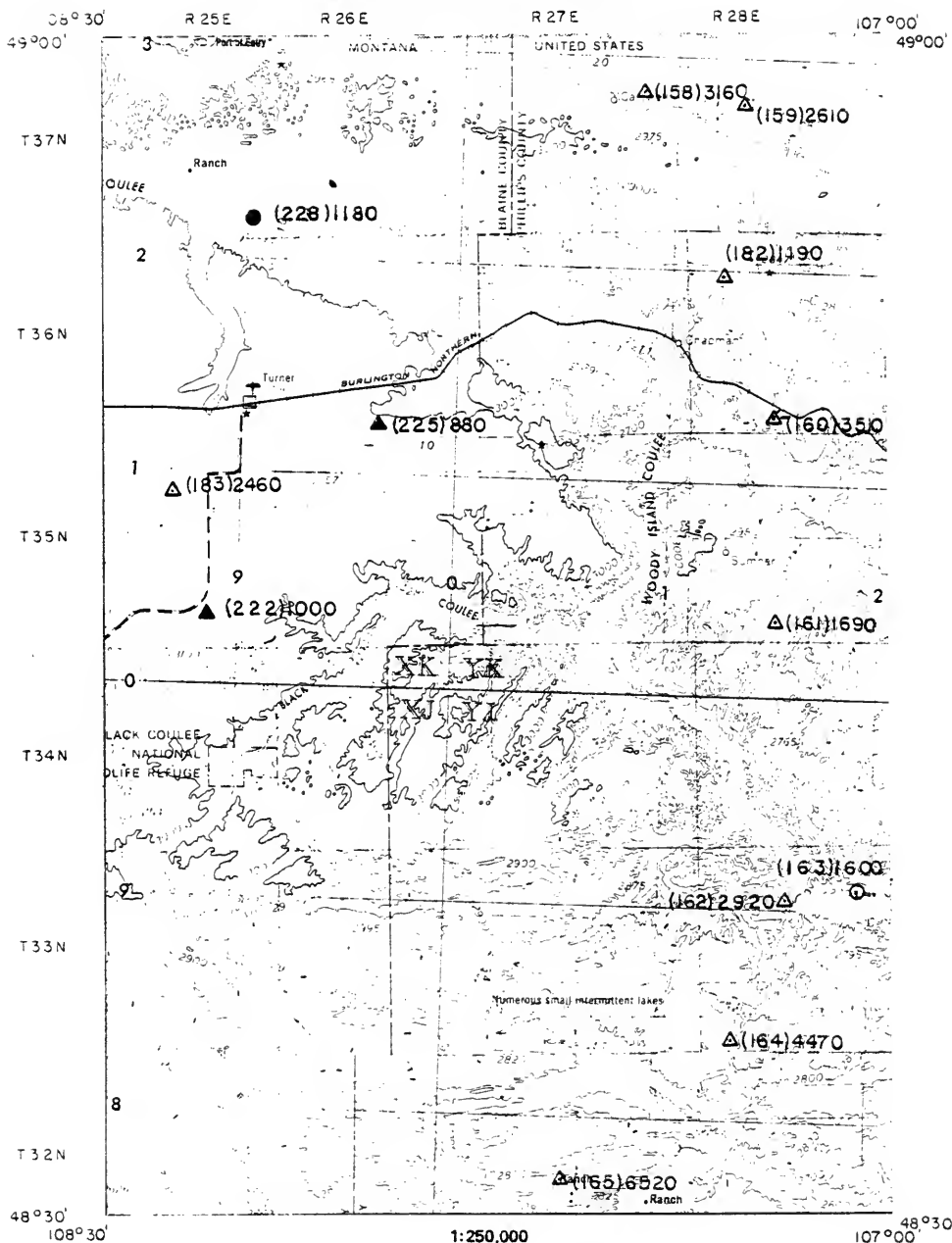
HAVRE 1° x 2° SHEET





# SPECIFIC CONDUCTANCE SURVEY

HAVRE-1



## H A V R E - 2



## HAYRE-3

109000

48°30'  
109°30'

**1:250,000**

109°00'

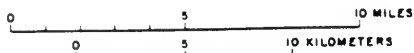
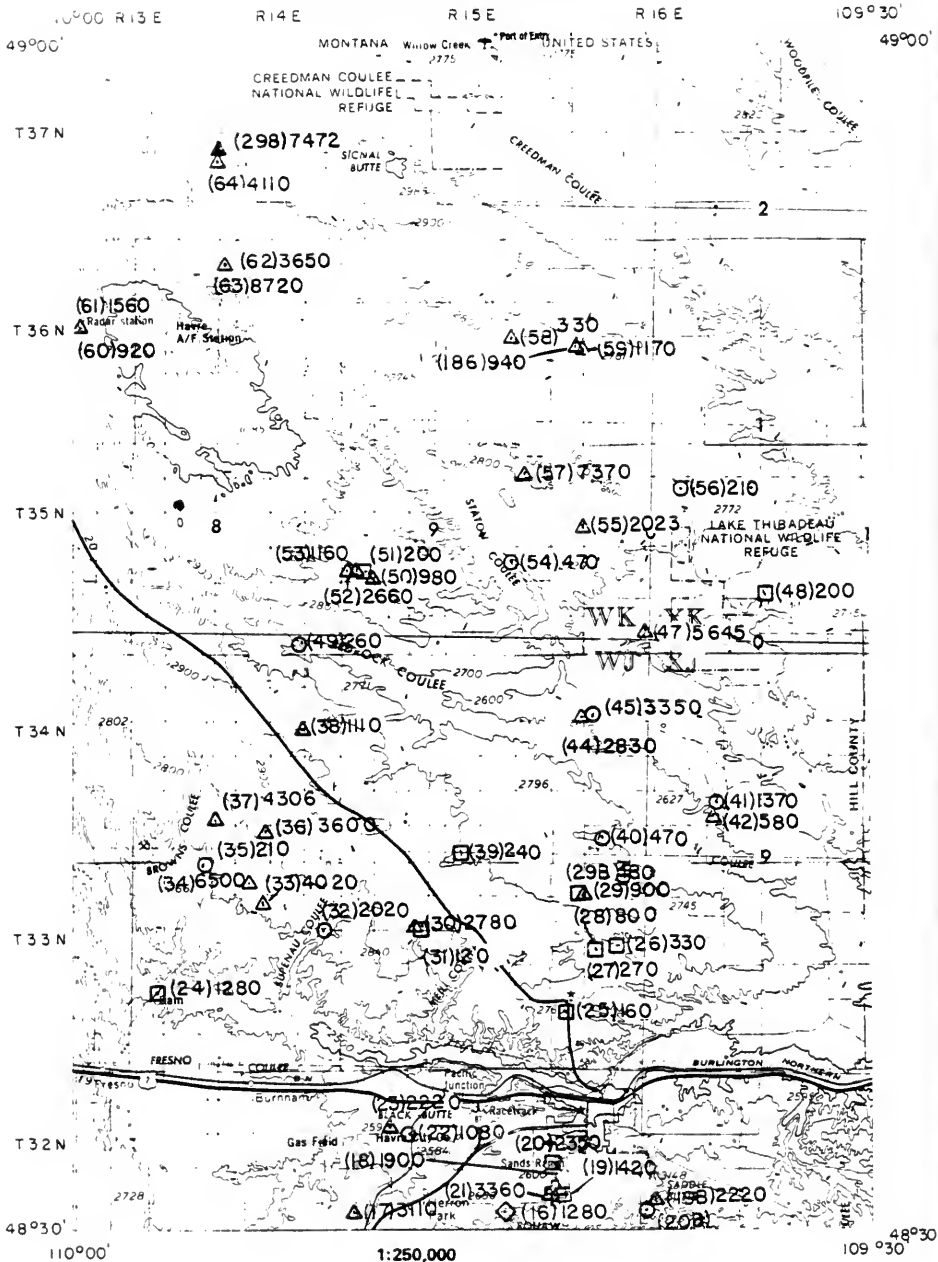
CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

HAVRE-4

109°30'

49°00'



CONTOUR INTERVAL 100 FT

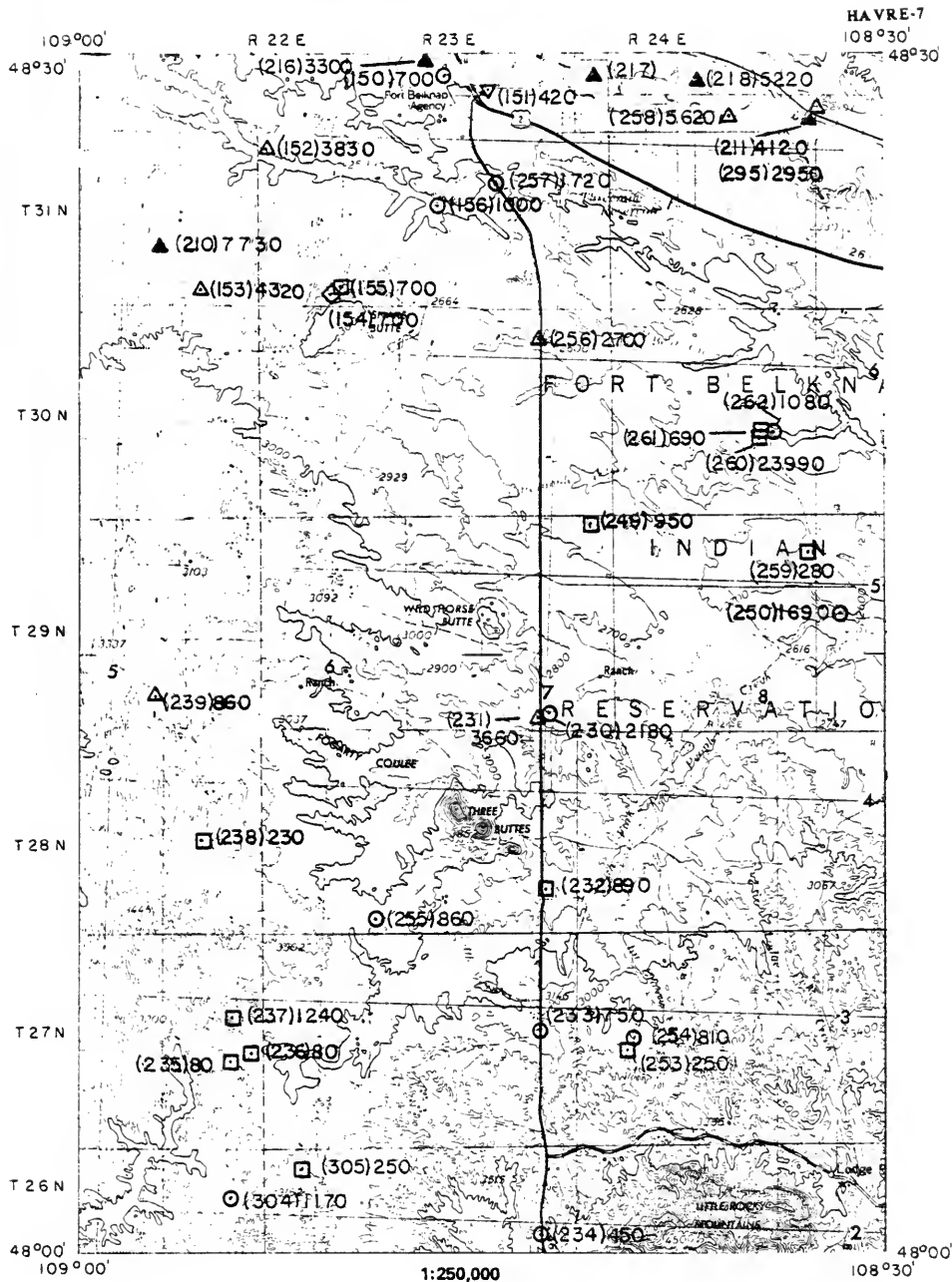
## HA VRE-5

CONTROL NUMBER 100 577

**HAVRE-6**



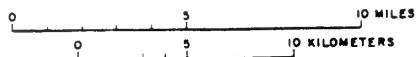
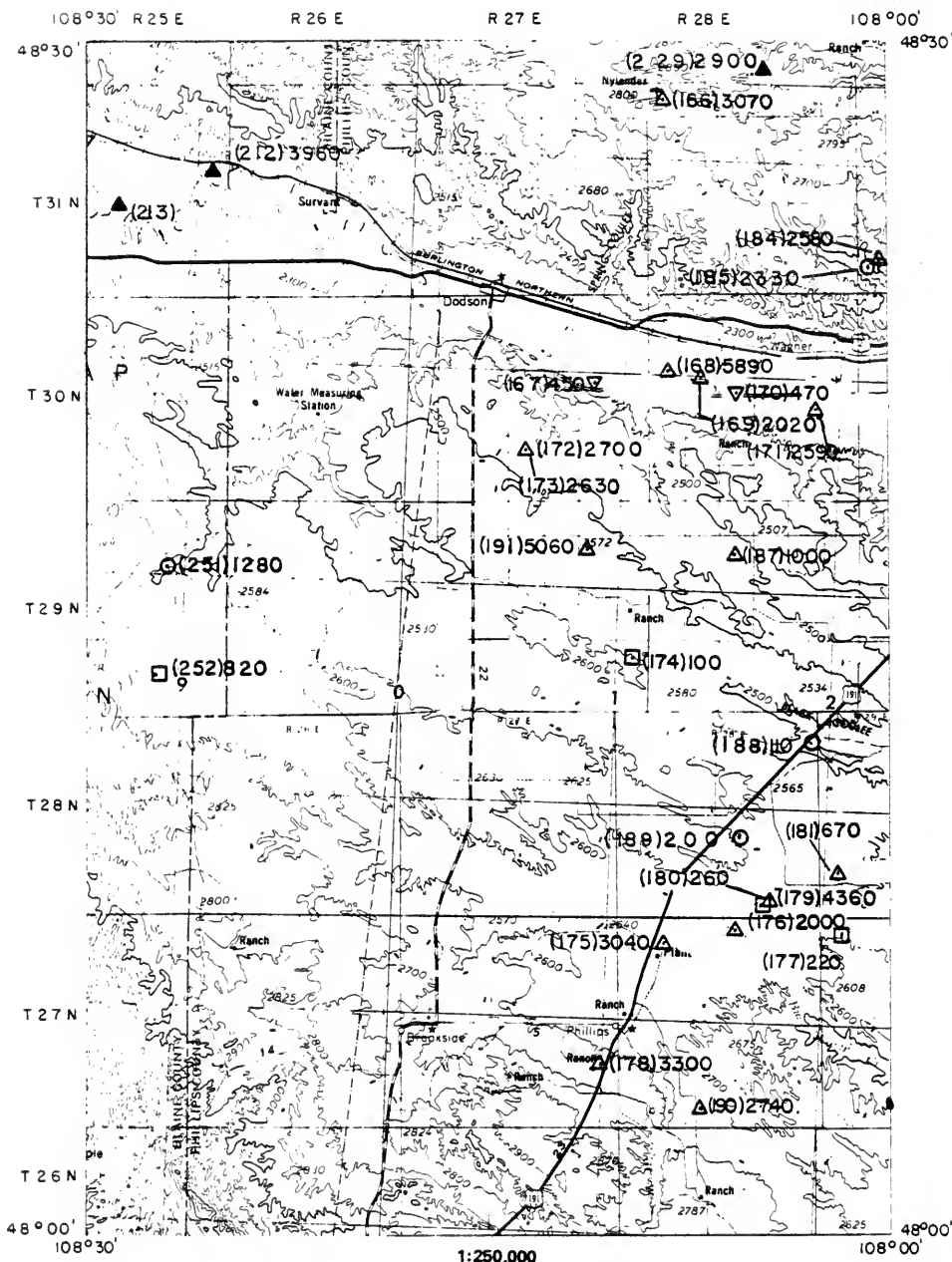
## SPECIFIC CONDUCTANCE SURVEY



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

HAVRE-8



CONTOUR INTERVAL 100 FT



# HAVRE 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| M<br>Map<br>ref. | Field<br>no. | County   | Location<br>T R Sec. Twp. Mo. Day Yr. | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description                           | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab.<br>analysis | Altitude<br>ft. | Static<br>water<br>depth<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name        |
|------------------|--------------|----------|---------------------------------------|--------------------|--|--|--------------------------------------|----------------------|------------------|-----------------|---------------------------------|----------------------|-----------------|---------------------|
| 1                | MBMG171      | Chouteau | 27N 16E 25 ABCC                       | 08 10 76           | Creek<br>8 cfs                                 | Birch Creek                                | 660                                  | 20                   | no               | 3620            |                                 |                      |                 |                     |
| 2                | MBMG172      | Chouteau | 27N 16E 27 BCCB                       | 08 10 76           | Pond<br>no flow                                | Recharged by Little Birch Creek            | 710                                  | 21                   | no               | 3980            |                                 |                      |                 |                     |
| 3                | MBMG173      | Chouteau | 26N 15E 09 DAA                        | 08 10 76           | Pond<br>no flow                                |  | 490                                  | 16                   | no               | 3400            |                                 |                      |                 |                     |
| 4                | MBMG189      | Chouteau | 27N 15E 33 BADC                       | 08 10 76           | Creek<br>1 cfs (M)                             | Eagle Creek                                | 410                                  | 17                   | no               | 3560            |                                 |                      |                 |                     |
| 5                | MBMG187      | Chouteau | 26N 14E 21 CBCC                       | 08 10 75           | Well<br>1 gpm                                  | Well is located 100 yards N of house       | 960                                  | 10                   | no               | 3600            |                                 |                      |                 |                     |
| 6                | MBMG168      | Chouteau | 26N 14E 21 CCB                        | 08 10 76           | Well<br>1.5 gpm                                | Stock and domestic use except for drinking | 1190                                 | 9.9                  | no               | 3620            |                                 | 100                  |                 | Wight               |
| 7                | MBMG168      | Chouteau | 26N 14E 20 CBBC                       | 08 10 76           | Spring<br>6 gpm                                | Water is piped 1.1 miles to residence      | 1090                                 | 15.8                 | no               | 3480            |                                 |                      |                 | Wight               |
| 8                | MBMG164      | Chouteau | 26N 14E 18 DADC                       | 08 10 76           | Well   | Well is located 10 feet E of house         | 2070                                 | 19                   | no               | 3210            |                                 | 60                   |                 | Purley              |
| 9                | MBMG165      | Chouteau | 26N 14E 18 DADC                       | 08 10 76           | Well   | Well is located 50 feet E of house         | 860                                  | 17                   | no               | 3210            |                                 | 60                   |                 | Purley              |
| 10               | MBMG174      | Hill     | 30N 15E 30 DBCD                       | 04 12 76           | Well   | Domestic use except for drinking           | 1510                                 | 19.8                 | no               | 3460            |                                 |                      |                 | Derry, L.           |
| 11               | MBMG166      | Hill     | 31N 14E 36 AAC                        | 04 12 76           | Well   | Stock use                                  | 1450                                 | 11                   | no               | 2750            |                                 |                      |                 |                     |
| 12               | MBMG165      | Hill     | 31N 14E 36 AAC                        | 04 12 76           | Creek<br>0.7 cfs                               | Small creek                                | 1690                                 | 10                   | no               | 2640            |                                 |                      |                 |                     |
| 13               | MBMG165      | Hill     | 31N 14E 36 AAC                        | 04 12 76           | Creek<br>0.7 cfs                               | Big Sandy Creek                            | 1690                                 | 10                   | no               | 2680            |                                 |                      |                 |                     |
| 14               | MBMG163      | Hill     | 31N 14E 15 AB                         | 04 12 78           | Well   | Domestic use                               | 3010                                 | 13                   | no               | 2630            |                                 | 260                  |                 | Khumuk, E<br>Latham |
| 15               | MBMG162      | Hill     | 31N 14E 12 BC                         | 04 12 78           | Well   | Domestic use                               | 2960                                 | 13.2                 | no               | 2630            |                                 |                      |                 |                     |
| 16               | MBMG164      | Hill     | 32N 15E 25 BBDD                       | 04 11 76           | Spring   | Domestic use                               | 1280                                 | 15                   | no               | 2680            |                                 |                      |                 | Kuhr                |
| 17               | MBMG146      | Hill     | 32N 15E 30 AAC                        | 04 11 76           | Well   | Domestic use                               | 3110                                 | 11.5                 | no               | 2600            |                                 |                      |                 | Kelka               |
| 18               | MBMG150      | Hill     | 32N 15E 19 DDCB                       | 04 11 76           | Sep  | Located at the base of a stock dam         | 1900                                 | 20.5                 | no               | 2660            |                                 |                      |                 | Dorchus             |
| 19A              | MBMG152      | Hill     | 32N 15E 19 DDBB                       | 04 11 76           | Reservoir                                      | Stock reservoir, seeps located downstream  | 1420                                 | 13.5                 | no               | 2700            |                                 |                      |                 | Dorchus             |
| 19B              | MBMG155      | Hill     | 32N 15E 22 CDDC                       | 04 11 76           | Well   | Domestic use                               | 2220                                 | 10.2                 | no               | 2640            |                                 |                      |                 | Widderkind          |
| 20A              | MBMG149      | Hill     | 32N 15E 18 DCAA                       | 04 11 76           | Reservoir                                      | Stock reservoir                            | 2350                                 |                      | no               | 2610            |                                 |                      |                 |                     |
| 20B              | MBMG155      | Hill     | 32N 15E 27 BBAA                       | 04 11 76           | Creek  |  |                                      |                      | no               | 2600            |                                 |                      |                 |                     |
| 21               | MBMG151      | Hill     | 32N 15E 19 DDBB                       | 04 11 76           | Well   |  | 3360                                 | 10.9                 | no               | 2970            | B                               | 20                   |                 | Dorchus             |
| 22               | MBMG147      | Hill     | 32N 15E 09 CDBB                       | 04 11 76           | Creek  | Beaver Creek                               | 1080                                 | 16                   | no               | 2670            |                                 |                      |                 |                     |
| 23               | MBMG146      | Hill     | 32N 15E 08 DAAA                       | 04 11 76           | Well   | Domestic use                               | 2720                                 | 14.1                 | no               | 2580            |                                 | 260                  |                 | Hansen              |
| 24               | MBMG134      | Hill     | 33N 14E 19 DDB                        |                    | Reservoir                                      | Fresno Reservoir                           | 1280                                 | 14                   | no               | 2610            |                                 |                      |                 |                     |
| 25               | MBMG163      | Hill     | 33N 15E 30 BBDD                       | 04 11 76           | Reservoir                                      | Stock reservoir                            | 160                                  | 19                   | no               | 2740            |                                 |                      |                 |                     |
| 26               | MBMG160      | Hill     | 33N 15E 17 CDDC                       | 04 11 76           | Reservoir                                      | Stock reservoir                            | 310                                  | 13.9                 | no               | 2720            |                                 |                      |                 |                     |
| 27               | MBMG160      | Hill     | 33N 15E 17 CDDC                       | 04 11 76           | Reservoir                                      | Stock reservoir                            | 270                                  | 18.6                 | no               | 2710            |                                 |                      |                 |                     |
| 28               | MBMG160      | Hill     | 33N 15E 17 CDDC                       | 04 11 76           | Reservoir                                      | Stock reservoir                            | 860                                  | 20.5                 | no               | 2770            |                                 |                      |                 |                     |

## HAVRE 1° x 2° Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref | Field<br>number | County | Location<br>T R S Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                             | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name |
|------------|-----------------|--------|-------------------------|---------------------------------|--|--|--------------------------------------|----------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|--------------|
| 29A        | MBMG97          | Hill   | 33N 16E 06 DDD          | 04 11 76 Well                   |  | Domestic and stock use                       | 900                                  | 22                   | no              | 2760            | 8                               | 18                   |                 | Mark         |
| 29B        | MBMG105         | Hill   | 33N 15E 06 DDD          | 04 11 76 Reservoir              |  | Stock reservoir                              | 180                                  | 13.5                 | no              | 2760            |                                 |                      |                 | Mark         |
| 30         | MBMG98          | Hill   | 33N 15E 06 DDD          | 04 11 76 Well                   |  | Stock use prior to 8/75, unused since        | 2780                                 | 8                    | no              | 2840            |                                 | 18                   |                 | Knutson      |
| 31         | MBMG98          | Hill   | 33N 15E 06 DDD          | 04 11 76 Reservoir              |  | Stock reservoir                              | 2720                                 | 14.8                 | no              | 2840            |                                 |                      |                 | Knutson      |
| 32         | MBMG95          | Hill   | 33N 14E 12 DCC          | 04 13 76 Creek                  |  |  | 2020                                 | 11.8                 | no              | 2660            |                                 |                      |                 |              |
| 33         | MBMG94          | Hill   | 33N 14E 10 ABAB         | 04 13 76 Well                   |  | Domestic use except for drinking             | 4020                                 | 15                   | no              | 2710            |                                 | 405                  |                 | Mc Slay      |
| 34         | MBMG93          | Hill   | 33N 14E 03 CABD         | 04 13 76 Well                   |  | Domestic use except for drinking             | 8500                                 | 14.9                 | no              | 2720            |                                 | 156                  |                 | Morie        |
| 35         | MBMG92          | Hill   | 33N 14E 04 BBAB         | 04 13 76 Creek                  |  | Kelnet Coulee                                | 210                                  | 15.5                 | no              | 2700            |                                 |                      |                 | Morie        |
| 36         | MBMG84          | Hill   | 34N 14E 34 ABAB         | 04 13 75 Well                   |  | Domestic use except for drinking             | 3600                                 | 12.8                 | no              | 2850            |                                 | 410                  |                 | Morie        |
| 37         | MBMG83          | Hill   | 34N 14E 26 DDD          | 01 11 77 Well                   | 10 gpm   | Domestic and stock use                       | 4306                                 | 10                   | yes             | 2720            | 40                              | 340                  |                 | Springer     |
| 38         | MBMG95          | Hill   | 34N 14E 14 AADC         | 04 12 76 Well                   |  | Domestic use                                 | 1110                                 | 9.8                  | no              | 2900            |                                 |                      |                 | Graeger      |
| 39         | MBMG91          | Hill   | 34N 15E 34 CAD          | 04 12 76 Reservoir              |  | Stock reservoir                              | 210                                  | 16                   | no              | 2820            |                                 |                      |                 | Verspagen    |
| 40         | MBMG58          | Hill   | 34N 16E 32 ECR          | 04 11 75 Creek                  |  | Cool Creek                                   | 470                                  | 14                   | no              | 2707            |                                 |                      |                 |              |
| 41         | MBMG89          | Hill   | 34N 16E 26 ACC          | 04 11 76 Creek                  |  | Redrock Coulee                               | 1370                                 | 16.9                 | no              | 2600            |                                 |                      |                 |              |
| 42         | MBMG90          | Hill   | 34N 16E 26 DBA          | 04 11 76 Well                   |  | Domestic use                                 | 580                                  | 13                   | no              | 2500            |                                 | 15                   |                 | Kelle        |
| 43         | not on map      |        |                         |                                 |  |  |                                      |                      |                 |                 |                                 |                      |                 |              |
| 44         | MBMG87          | Hill   | 34N 16E 07 DDB          | 04 11 76 Well                   | 16 gpm   | Stock use                                    | 2630                                 | 5.9                  | no              | 2600            |                                 | 13                   |                 | Dion, W      |
| 45         | MBMG86          | Hill   | 34N 16E 08 CRC          | 04 11 76 Creek                  |  | Redrock Coulee                               | 3350                                 | 11.4                 | no              | 2620            |                                 |                      |                 |              |
| 46         | MBMG85          | Hill   | 35N 16E 33 ADC          | 01 11 77 Well                   |  | Stock and domestic use (except for drinking) | 5645                                 | 6                    | yes             | 2620            |                                 | 75                   | 211.DRV         | Roman        |
| 47         | MBMG57          | Hill   | 35N 17E 30 ECR          | 04 11 76 Reservoir              |  | Wildlife reservoir                           | 200                                  | 14.8                 | no              | 2700            |                                 |                      |                 |              |
| 48         | MBMG56          | Hill   | 35N 14E 35 DADD         | 04 12 76 Creek                  |  | Redrock Coulee                               | 260                                  | 19                   | no              | 2720            |                                 |                      |                 |              |
| 50         | MBMG82          | Hill   | 35N 15E 19 DDBA         | 04 12 76 Well                   |  | Domestic use except for drinking             | 980                                  | 14.8                 | no              | 2840            |                                 | 15                   |                 | Whaley       |
| 51         | MBMG81          | Hill   | 35N 15E 19 DDBA         | 04 12 76 Reservoir              |  | Domestic use except for drinking             | 200                                  | 15.1                 | no              | 2850            |                                 |                      |                 | Whaley       |
| 52         | MBMG59          | Hill   | 35N 15E 19 CAB          | 04 12 76 Well                   |  | Stock use                                    | 2660                                 | 12.5                 | no              | 2850            |                                 | 130                  |                 | Whaley       |
| 53         | MBMG60          | Hill   | 35N 15E 19 CAB          | 04 12 76 Well                   |  | Stock use                                    | 1160                                 | 8.4                  | no              | 2840            |                                 | 30                   |                 | Velt         |
| 54         | MBMG61          | Hill   | 35N 15E 19 CAB          | 04 12 76 Well                   |  | Stock use                                    | 170                                  | 11.8                 | no              | 2710            |                                 |                      |                 |              |
| 55         | MBMG62          | Hill   | 35N 15E 18 ADBA         | 11 11 75 Creek                  |  | Domestic use                                 | 203                                  | 17                   | yes             | 2710            |                                 |                      | 112.DRT         | Straeger     |
| 56         | MBMG65          | Hill   | 35N 15E 10 ABA          | 04 11 76 Creek                  |  | Lohman Coulee                                | 210                                  | 17                   | no              | 2723            |                                 |                      |                 |              |
| 57         | MBMG57          | Hill   | 35N 15E 01 CDC          | 04 12 76 Well                   |  | Stock use                                    | 7370                                 | 8.2                  | no              | 2780            |                                 |                      |                 | Knutson      |

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|--------------------|-----------------|--------|---------------------------|-------------------------|--|--|--------------------------------------|----------------------|-----------------|------------------|----------------------------------|-----------------------|-----------------|--------------|
| 58                 | MBMG51          | Hill   | 36N 18E 14 DODD           | 04 12 76 Well           |  | Domestic use                                 | 330                                  | 11.2                 | no              | 2780             | no                               | 17                    |                 | McIntosh     |
| 59                 | MBMG52          | Hill   | 36N 18E 19 AAB8           | 04 11 76 Well           |  | Domestic use                                 | 1170                                 | 8.5                  | no              | 2850             | no                               | 30                    |                 | Dusak        |
| 60                 | MBMG45          | Hill   | 36N 13E 14 BDB8           | 04 13 76 Well           |  | Domestic use                                 | 920                                  | 14.1                 | no              | 2880             | no                               | 30                    |                 | Majum        |
| 61                 | MBMG46          | Hill   | 36N 13E 14 BDB8           | 04 13 76 Well           |  | Stock use                                    | 1560                                 | 13                   | no              | 2880             | no                               | 447                   |                 | Majum        |
| 62                 | MBMG48          | Hill   | 36N 14E 04 DCD0           | 04 12 76 Well           |  | Stock use                                    | 3550                                 | 12                   | no              | 2850             | no                               | 60                    |                 | Cox          |
| 63                 | MBMG49          | Hill   | 36N 14E 04 DCD0           | 04 12 76 Well           |  | Domestic use except for drinking             | 8720                                 | 12                   | no              | 2660             | no                               | 30                    |                 | Cox          |
| 64                 | MBMG50          | Hill   | 37N 14E 30 DCD0           | 07 07 76 Well           |  | Domestic use                                 | 2810                                 | 10                   | yes             | 2810             | no                               | 24                    | 112DRFT         | Johnson      |
| 65                 | MBMG09          | Blaine | 31N 20E 22 BA             | 07 07 76 Well           |  | Domestic use                                 | 1630                                 | 10                   | no              | 2770             | no                               | 10                    |                 | Schneider    |
| 66                 | MBMG10          | Blaine | 31N 20E 22 BA             | 07 07 76 Well           |  | Domestic use                                 | 1240                                 | 9                    | no              | 2770             | no                               | 8                     |                 | Schneider    |
| 67                 | MBMG12          | Blaine | 35N 20E 07                | 07 07 76 Creek          |  | Chateau Coulee                               | 420                                  | 21.2                 | no              | 2700             | no                               |                       |                 |              |
| 68                 | MBMG40          | Blaine | 31N 18E 21 CCC            | 07 08 76 Pond           |  |  | 2610                                 | 22                   | no              | 3150             | no                               |                       |                 | Schellin     |
| 69                 | MBMG1           | Blaine | 36N 18E 19 D              | 07 07 76 Well           | 0.5 gpm  | Domestic use, perhaps contains high nitrates | 1240                                 | 14.5                 | no              | 2610             | 7                                | 14                    |                 |              |
| 70                 | MBMG2           | Blaine | 36N 18E 20 CC             | 07 07 76 Creek          |  | Lodge Creek                                  | 210                                  | 22                   | no              | 2600             | no                               |                       |                 | Ginsore      |
| 71                 | MBMG3           | Blaine | 36N 18E 17 AC             | 07 07 76 Well           |  |  | 2600                                 |                      | no              | 2600             | no                               |                       |                 | Lyleck       |
| 72                 | MBMG27          | Blaine | 34N 18E 30 CDA4           | 07 07 76 Pond           |  |  | 320                                  | 23                   | no              | 2600             | no                               |                       |                 |              |
| 73                 | MBMG11          | Blaine | 34N 20E 16 DDB            | 07 08 76 Reservoir      |  | Stock use                                    | 280                                  | 22                   | no              | 2700             | no                               |                       |                 | Lyleck       |
| 74                 | MBMG28          | Blaine | 33N 18E 05 DBCD           | 07 07 76 Well           | 1.0 gpm  | Not used for drinking                        | 5690                                 | 13                   | no              | 2500             | no                               | 300                   |                 | Prohgen      |
| 75                 | MBMG29          | Blaine | 33N 18E 16 CABC           | 07 07 76 Well           |  | Domestic use                                 | 760                                  | 16                   | no              | 2440             | no                               |                       |                 | Listou       |
| 76                 | MBMG04          | Blaine | 34N 18E 35 CCB            | 07 07 76 Well           | 60 gpm   | Domestic use                                 | 2880                                 | 13                   | no              | 2440             | 30                               | 160                   |                 | Garapies     |
| 77                 | MBMG30          | Blaine | 33N 18E 29 DBBD           | 07 07 76 Well           |  | Domestic use                                 | 810                                  | 12                   | no              | 2440             |                                  |                       |                 |              |
| 78                 | MBMG32          | Blaine | 33N 18E 33 CCA4           | 07 07 76 Creek          | 20 gpm   |  | 920                                  | 23.5                 | no              | 2490             | no                               |                       |                 |              |
| 79                 | MBMG31          | Blaine | 32N 17E 01 BORD           | 07 07 76 Well           | 8 gpm  | Domestic use                                 | 3810                                 | 15                   | no              | 2840             | 6                                | 120                   |                 | Johnson      |
| 80                 | MBMG33          | Blaine | 32N 18E 29 BCB8           | 07 07 76 Pond           | 8 gpm  | Stock and domestic use (except for drinking) | 6840                                 | 15                   | no              | 2880             | 30                               | 168                   |                 | Finch        |
| 81                 | MBMG35          | Blaine | 32N 18E 34                | 07 07 76 Well           | 6 gpm  |  | 18773                                | 23                   | no              | 2880             | 8                                | 14                    |                 | Finch        |
| 82                 | MBMG34          | Blaine | 32N 18E 34 A              | 07 07 76 Well           |  |  | 7380                                 | 9                    | no              | 2900             | 8                                |                       |                 |              |
| 83                 | 76M1630         | Blaine | 32N 18E 34 A              | 12 22 76 Well           | 8 gpm (E)  | Stock use but cattle won't drink it          | 8854                                 | 8                    | yes             | 2860             | 7                                | 14                    | 112DRFT         | Finch        |
| 84                 | MBMG37          | Blaine | 31N 18E 06 CDA8           | 07 08 76 Creek          | 0.5 cfs  |  | 720                                  | 20                   | no              | 2960             | no                               |                       |                 | Olsen, H. W. |
| 85                 | MBMG36          | Blaine | 31N 18E 06 CDB8           | 07 08 76 Spring         |  | Domestic use                                 | 1100                                 | 20                   | no              | 2960             | no                               |                       |                 | Olsen, H. W. |
| 86                 | MBMG51          | Blaine | 30N 18E 23                | 07 08 76 Spring         | 20 gpm   |  | 380                                  | 12                   | no              | 3680             | no                               |                       |                 | Dress Ranch  |
| 87                 | MBMG50          | Blaine | 36N 18E 33 CA             | 07 08 76 Well           |  | Domestic use                                 | 380                                  | 10                   | no              | 3630             | no                               |                       |                 |              |

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|-------------|-----------------|--------|---------------------------|---------------------------------|--|--|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 88          | 76M1525         | Blaine | 32N 19E 02                | 12 21 78                        | Spring   | Domestic use                                 | 1554                                 | 13                   | yes             | 2450              |                                   |                        | 211JDRV         | Swenson      |
| 89          | MBMG59          | Blaine | 32N 19E 01                | 07 09 78                        | Creek  | Black Coulee                                 | 410                                  | 21.5                 | no              | 2400              |                                   |                        |                 | Swenson      |
| 90          | 76M1528         | Blaine | 31N 19E 13                | 12 22 78                        | Well   | Domestic use                                 | 2204                                 | 12                   | yes             | 2980              | 80                                | 120                    | 211JDRV         | Webbston     |
| 91          | MBMG60          | Blaine | 32N 19E 24                | 07 09 78                        | Well   | Domestic use                                 | 990                                  | 10                   | no              | 2750              | 53                                | 73                     | 211JDRV         | Stearns      |
| 92          | MBMG73          | Blaine | 32N 20E 06                | 07 09 78                        | Well   | Domestic use                                 | 6360                                 | 12                   | no              | 2430              |                                   |                        |                 | Hermes       |
| 93          | MBMG76          | Blaine | 32N 20E 09                | 07 09 78                        | Well   | Domestic use                                 | 2860                                 | 13                   | no              | 2410              |                                   | 140                    |                 | Greber       |
| 94          | MBMG74          | Blaine | 32N 20E 04 A              | 07 09 78                        | Well   | Domestic use                                 | 1590                                 | 11                   | no              | 2380              |                                   | 150                    |                 | Overcast     |
| 95          | MBMG75          | Blaine | 32N 20E 04 A              | 07 09 78                        | Well   | Domestic use                                 | 1990                                 | 11                   | no              | 2380              |                                   | 150                    |                 | Overcast     |
| 96          | MBMG77          | Blaine | 32N 20E 03 B              | 07 09 78                        | Well   | Domestic use                                 | 2010                                 | 13                   | no              | 2380              |                                   | 120                    |                 | Powell       |
| 97          | 76M1574         | Blaine | 32N 20E 03 B              | 12 21 78                        | Well   | Domestic use                                 | 2749                                 | 8                    | yes             | 2380              |                                   | 120                    | 211JDRV         | Powell       |
| 98          | MBMG78          | Blaine | 32N 20E 02                | 07 09 78                        | Well   | Domestic use                                 | 3400                                 | 9                    | no              | 2380              | 20                                | 165                    |                 | McNeill      |
| 99          | 76M1522         | Blaine | 32N 21E 31                | 12 21 78                        | Well   | Domestic use                                 | 2342                                 | 13                   | yes             | 2380              |                                   | 150                    | 110ALVM         | Benson       |
| 100         | MBMG79          | Blaine | 32N 21E 31                | 07 11 78                        | Well   | Domestic use except for drinking             | 3270                                 | 5                    | no              | 2380              |                                   |                        |                 | Drivin       |
| 101         | MBMG80          | Blaine | 32N 21E 31                | 07 11 78                        | Well   | Domestic use except for cooling and drinking | 3690                                 | 12                   | no              | 2380              |                                   |                        |                 | Higgins      |
| 102         | MBMG81          | Blaine | 32N 21E 31                | 07 09 78                        | Well   | Domestic use except for cooling and drinking | 2420                                 | 13                   | no              | 2380              |                                   |                        |                 | Benson       |
| 103         | MBMG87          | Blaine | 32N 21E 32                | 07 11 78                        | Well   | Domestic use                                 | 2650                                 | 12.6                 | no              | 2380              | 30                                | 185                    |                 | Burns        |
| 104         | MBMG78          | Blaine | 32N 21E 05                | 07 09 78                        | Well   | Domestic use                                 | 2430                                 | 14                   | no              | 2380              | 20                                | 80                     |                 | Webbston     |
| 105         | MBMG81          | Blaine | 32N 21E 07                | 07 10 78                        | Well   | Domestic use                                 | 1980                                 | 10                   | no              | 2380              |                                   | 125                    |                 | Schlitten    |
| 106         | MBMG82          | Blaine | 32N 21E 18                | 07 10 78                        | Reservoir                                      | Domestic use                                 | 1740                                 | 22.5                 | no              | 2400              |                                   |                        |                 | Schlitten    |
| 107         | MBMG83          | Blaine | 32N 21E 19                | 07 10 78                        | Well   | Domestic use                                 | 4130                                 | 9                    | no              | 2530              | 18                                | 28                     |                 | Hebbelman    |
| 108         | MBMG84          | Blaine | 32N 21E 19                | 07 10 78                        | Well   | Domestic use                                 | 5500                                 | 8                    | no              | 2540              |                                   | 300                    |                 | Hebbelman    |
| 109         | 76M1523         | Blaine | 32N 21E 30                | 12 21 78                        | Well   | Domestic use except for drinking             | 2380                                 | 12                   | yes             | 2380              |                                   |                        | 110ALVM         | Drivin, T.   |
| 110         | MBMG86          | Blaine | 31N 20E 01 DRC            | 07 10 78                        | Well   | Snake Creek                                  | 1090                                 | 16.6                 | no              | 2650              | 15                                | 15                     |                 | Schlitten    |
| 111         | MBMG85          | Blaine | 31N 20E 07 BCB            | 07 10 78                        | Well   | Snake Creek                                  | 1660                                 | 15.6                 | no              | 2650              |                                   |                        |                 | Schlitten    |
| 112         | MBMG71          | Blaine | 32N 20E 34 CB             | 12 21 78                        | Well   | Stock use                                    | 2111                                 | 8                    | yes             | 2850              | 350                               | 420                    | 211JDRV         | Webbston, W. |
| 113         | MBMG81          | Blaine | 31N 20E 06 B/C            | 07 09 78                        | Well   | Domestic use                                 | 1890                                 | 10                   | no              | 2900              | 50                                | 150                    |                 | Dahl         |
| 114         | MBMG82          | Blaine | 31N 20E 06 B/C            | 07 09 78                        | Well   | Stock use                                    | 3120                                 | 10.5                 | no              | 2880              | 75                                | 160                    |                 | Dahl         |
| 115         | 76M1523         | Blaine | 31N 19E 13 AAAC           | 07 09 78                        | Well   | Domestic use                                 | 2190                                 | 10                   | no              | 2980              | 80                                | 100                    | 211JDRV         | Webbston     |
| 116         | 76M1523         | Blaine | 31N 19E 13 AAAC           | 12 22 78                        | Well   | Domestic use                                 | 1624                                 | 9                    | yes             | 2960              | 100                               | 150                    | 211JDRV         | Webbston, L. |
| 117         | MBMG84          | Blaine | 31N 19E 13 AAAD           | 07 09 78                        | Well   | Lawn Irrigation use                          | 1550                                 | 10                   | no              | 2980              | 100                               | 150                    | 211JDRV         | Webbston     |

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|------------|-----------------|--------|---------------------------|---------------------------------|--|--|--------------------------------------|---------------------|-----------------|---------------------------------|----------------------|-----------------|------------------|
| 118        | MBMG65          | Blaine | 31N 08E 26 BAC            | 07 08 76                        | Reservoir                                  | Domestic use                           | 920                                  | 24                  | no              | 2960                            | 8                    | 30              | Vetecrysen       |
| 119        | MBMG41          | Blaine | 31N 08E 19                | 07 08 76                        | Well                                       | 5 gpm                                  | 1720                                 | 15                  | no              | 3070                            | 12                   | 30              | Vetecrysen       |
| 120        | MBMG42          | Blaine | 31N 08E 19                | 07 08 76                        | Well                                       | 6 gpm                                  | 2120                                 | 15                  | no              | 3070                            | 12                   | 30              | Vetecrysen       |
| 121        | MBMG45          | Blaine | 31N 08E 30                | 07 08 76                        | Well                                       | 6 gpm                                  | 870                                  | 15                  | no              | 3200                            | 15                   | 12              | Paulsen, E       |
| 122        | MBMG44          | Blaine | 31N 08E 30                | 07 08 76                        | Well                                       |  | 790                                  | 12                  | no              | 3070                            | 7                    | 25              | Paulsen, E       |
| 123        | MBMG43          | Blaine | 31N 08E 20 BCC            | 07 08 76                        | Creek                                      | Clear Creek, algal sample taken        | 610                                  | 20                  | no              | 3040                            |                      |                 | Vetecrysen       |
| 124        | MBMG39          | Blaine | 31N 08E 21                | 12 22 76                        | Well                                       | Domestic use except for drinking       | 2621                                 | 4                   | yes             | 3080                            |                      |                 | Paulsen, E       |
| 125        | MBMG38          | Blaine | 31N 08E 21                | 12 22 76                        | Well                                       | Stock use                              | 2913                                 | 8                   | yes             | 3080                            |                      |                 | Paulsen, E       |
| 126        | MBMG46          | Blaine | 30N 08E 18 D8             | 07 08 76                        | Pond                                       |  | 190                                  | 24                  | no              | 3760                            |                      |                 |                  |
| 127        | MBMG47          | Blaine | 30N 08E 25 DA             | 07 08 76                        | Pond                                       |  | 1010                                 | 23.5                | no              | 3790                            |                      |                 |                  |
| 128        | MBMG49          | Blaine | 30N 08E 36 AD             | 07 08 76                        | Well                                       |  | 480                                  | 8.5                 | no              | 3730                            |                      |                 | Ross             |
| 129        | MBMG48          | Blaine | 30N 08E 36 AD             | 07 08 76                        | Springs                                    |  | 430                                  | 11                  | no              | 3720                            |                      |                 | Ross             |
| 130        | MBMG52          | Blaine | 30N 08E 23                | 07 08 76                        | Pond                                       |  | 2010                                 | 23                  | no              | 3600                            |                      |                 | Erkine           |
| 131        | MBMG56          | Blaine | 31N 08E 20 D              | 07 08 76                        | Well                                       | Domestic use                           | 1210                                 |                     | no              | 3030                            | 20                   | 30              |                  |
| 132        | MBMG55          | Blaine | 31N 08E 26 CBBB           | Reservoir                       |  | Greshlager Reservoir                   | 930                                  |                     | no              | 3070                            |                      |                 |                  |
| 133        | MBMG54          | Blaine | 31N 08E 33 BA             | 07 08 76                        | Well                                       | Stock use                              | 1400                                 |                     | no              | 3600                            | 100                  |                 | S-B Ranch        |
| 134        | MBMG57          | Blaine | 31N 08E 33                | 07 08 76                        | Well                                       | Domestic use                           | 360                                  | 13                  | no              | 3660                            |                      |                 | S-B Ranch        |
| 135        | MBMG67          | Blaine | 30N 08E 18 BCC            | 07 08 76                        | Well                                       | 3 gpm                                  | 1580                                 | 15.5                | no              | 3190                            | 4                    | 1000            | Guarrie          |
| 136        | MBMG66          | Blaine | 30N 08E 31 CDD            | 07 08 76                        | Well                                       | 25 gpm                                 | 1450                                 | 9                   | no              | 3300                            | 10                   | 15              | W. Weststock     |
| 137        | MBMG23          | Blaine | 36N 21E 04 C              | 07 08 76                        | Reservoir                                  |  | 420                                  | 22                  | no              | 3110                            |                      |                 | Swank            |
| 138        | MBMG21          | Blaine | 36N 21E 04 B              | 07 08 76                        | Well                                       | Domestic use except for drinking       | 1790                                 | 14                  | no              | 3100                            | 14                   |                 | Swank            |
| 139        | MBMG22          | Blaine | 36N 21E 04 BD             | 07 08 76                        | Well                                       | Domestic use except for drinking       | 1860                                 | 9.3                 | no              | 3020                            | 40                   | 186             | Swank            |
| 140        | MBMG24          | Blaine | 37N 22E 22 CC             | 07 08 76                        | Reservoir                                  | Water fowl habitat, possible stock use | 310                                  | 22                  | no              | 3020                            |                      |                 |                  |
| 141        | MBMG26          | Blaine | 37N 22E 19 AB             | 07 08 76                        | Reservoir                                  | Stock reservoir                        | 180                                  | 22                  | no              | 3180                            |                      |                 | Gordon Cattle Co |
| 142        | MBMG25          | Blaine | 37N 22E 14                | 07 08 76                        | Well                                       | Domestic use                           | 420                                  | 12                  | no              | 3180                            | 4                    |                 | Gordon Cattle Co |
| 143        | MBMG94          | Blaine | 32N 21E 01 CBAD           | 07 10 76                        | Well                                       | 8 gpm                                  | 2240                                 | 14.5                | no              | 2270                            | 40                   | 120             | Wick, D          |
| 144        | MBMG93          | Blaine | 32N 22E 07 CACC           | 07 10 76                        | Well                                       |  | 2680                                 | 18                  | no              | 2260                            |                      |                 | Frederick        |
| 145        | MBMG92          | Blaine | 32N 22E 19 ABBB           | 07 10 76                        | Well                                       | Domestic use                           | 2130                                 | 11                  | no              | 2310                            |                      | 220             | Johnson          |
| 146        | MBMG91          | Blaine | 32N 21E 25 AAB            | 07 10 76                        | Well                                       | Domestic use                           | 2550                                 | 14                  | no              | 2400                            | 50                   | 300             | Norham           |
| 147        | MBMG90          | Blaine | 32N 22E 21 BABA           | 07 10 76                        | Well                                       | Domestic use                           | 1940                                 | 12                  | no              | 2260                            |                      | 230             | Pennell          |

**HAVRE 1" x 2" Sheet (Con't.)**  
**Specific Conductivity Inventory Sheet (Con't.)**

| Map<br>ref | Field<br>no. | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E-estimated<br>M-measured | Site description          | Specific<br>conductivity<br>at 75 °C | Field<br>temp<br>°C | Lab<br>analysis | Arduco<br>level<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name        |
|------------|--------------|----------|---------------------------|---------------------------------|--|---------------------------|--------------------------------------|---------------------|-----------------|--------------------------|-----------------------------------|------------------------|-----------------|---------------------|
| 148        | MBMG89       | Blaine   | 31N 22E 21 CC             | 07 10 76                        | Pond                                       | Surrounded by salt crust  | 1810                                 | 30                  | no              | 2380                     |                                   |                        |                 | Weers               |
| 149        | MBMG98       | Blaine   | 31N 22E 24 8A             | 07 11 76                        | Well                                       | Domestic use              | 1470                                 | 4.5                 | no              | 2350                     |                                   | 14                     |                 | Bradley             |
| 150        | MBMG100      | Blaine   | 31N 23E 32 DAD            | 07 11 76                        | River                                      | Fort Bulknap supply       | 700                                  | 18                  | no              | 2370                     |                                   |                        |                 |                     |
| 151        | MBMG99       | Blaine   | 31N 23E 33 DBBB           |                                 | Canal                                      |                           | 420                                  | 23                  | no              | 2340                     |                                   |                        |                 | Allen               |
| 152        | MBMG87       | Blaine   | 31N 22E 09 8CDC           | 07 10 76                        | Well                                       |                           | 3830                                 | 14                  | no              | 2550                     |                                   |                        |                 |                     |
| 153        | MBMG88       | Blaine   | 31N 22E 31 AADA           | 07 10 76                        | Well                                       | Stock well                | 4320                                 | 10.5                | no              | 2720                     | 99                                | 205                    |                 | Funk                |
| 154        | MBMG103      | Blaine   | 31N 22E 36 CBGA           | 07 11 76                        | Spring                                     | At Shave Butte campground | 700                                  | 1                   | no              | 2700                     |                                   |                        |                 |                     |
| 155        | MBMG102      | Blaine   | 31N 22E 36 BDBB           | 07 11 76                        | Pond                                       | Three Mile Creek          | 700                                  | 25                  | no              | 2700                     |                                   |                        |                 |                     |
| 156        | MBMG101      | Blaine   | 31N 23E 20 8BA            | 07 11 76                        | Creek                                      | North Fork Corral Coulee  | 1000                                 | 25                  | no              | 2450                     |                                   |                        |                 |                     |
| 157        | MBMG20       | Blaine   | 36N 20E 01 CC             | 07 06 78                        | Creek                                      |                           | 280                                  | 22.8                | no              | 2920                     |                                   |                        |                 |                     |
| 158        | MBMG2        | Phillips | 31N 27E 10 DDCC           | 07 22 76                        | Well                                       | Domestic use              | 3160                                 | 8.4                 | no              | 2880                     | 85                                | 116                    |                 | Hagen               |
| 159        | MBMG3        | Phillips | 31N 28E 18 AAC            | 07 22 76                        | Well                                       | Domestic use              | 2610                                 | 11                  | no              | 2980                     | 354                               | 424                    |                 | Andrews             |
| 160        | MBMG4        | Phillips | 36N 28E 33                | 07 22 76                        | Well                                       | Domestic use              | 3510                                 | 14.8                | no              | 2980                     | 12                                | 22                     |                 | Grabosky            |
| 161        | MBMG29       | Phillips | 31N 28E 06                | 07 22 76                        | Well                                       | Water contains much iron  | 1690                                 | 10                  | no              | 2980                     | 80                                | 180                    |                 | Grellosky           |
| 162        | MBMG27       | Phillips | 33N 28E 09                | 07 22 76                        | Well                                       | Domestic use              | 2920                                 | 14.3                | no              | 2780                     |                                   |                        |                 | Wilson              |
| 163        | MBMG28       | Phillips | 33N 28E 11                | 07 22 76                        | Creek                                      | Cottonwood Creek          | 1800                                 | 22.1                | no              | 2780                     |                                   |                        |                 |                     |
| 164        | MBMG1        | Phillips | 33N 28E 31 DA             | 07 21 76                        | Well                                       | Domestic use              | 4470                                 | 11                  | no              | 2810                     | 300                               | 380                    |                 | Boon                |
| 165        | MBMG44       | Phillips | 32N 27E 22 CB             | 07 21 76                        | Well                                       | Domestic use              | 6520                                 | 12.5                | no              | 2870                     | 230                               | 260                    |                 | Kamenzberger        |
| 166        | MBMG46       | Phillips | 31N 28E 06 BDCB           | 07 21 76                        | Well                                       |                           | 3070                                 | 15.5                | no              | 2870                     | 350                               | 475                    |                 | Nylander            |
| 167        | MBMG52       | Phillips | 30N 27E 14                | 07 21 76                        | Canal                                      |                           | 450                                  | 21                  | no              | 2780                     |                                   |                        |                 |                     |
| 168        | MBMG53       | Phillips | 30N 28E 18                | 07 21 76                        | Well                                       | Domestic and stock use    | 5890                                 | 13                  | no              | 2760                     |                                   | 160                    |                 | Anderson            |
| 169        | MBMG54       | Phillips | 30N 28E 17                | 07 21 76                        | Well                                       | Domestic and stock use    | 2020                                 | 17                  | no              | 2750                     | 5                                 | 100                    |                 | Clayton             |
| 170        | MBMG55       | Phillips | 30N 28E 16                | 07 21 76                        | Canal                                      | Water contains much iron  | 2250                                 | 13.5                | no              | 2750                     |                                   | 160                    |                 | Peterson            |
| 171        | MBMG56       | Phillips | 30N 28E 23                | 07 21 76                        | Well                                       | Domestic use              | 2700                                 | 12                  | no              | 2450                     |                                   | 90                     |                 | Lundstrom           |
| 172        | MBMG50       | Phillips | 30N 27E 28                | 07 21 76                        | Well                                       | Stock use                 |                                      |                     | no              | 2450                     |                                   | 80                     |                 |                     |
| 173        | MBMG51       | Phillips | 30N 27E 28                | 07 21 76                        | Well                                       | Domestic use              | 2630                                 | 13                  | no              | 2450                     |                                   | 90                     |                 | Lundstrom           |
| 174        | MBMG87       | Phillips | 29N 27E 25                | 07 21 76                        | Reservoir                                  | Stock reservoir           | 100                                  | 29                  | no              | 2600                     |                                   |                        |                 | Drum                |
| 175        | MBMG11       | Phillips | 27N 28E 06                | 07 23 76                        | Well                                       | Domestic and stock use    | 3040                                 | 18                  | no              | 2550                     |                                   | 90                     |                 |                     |
| 176        | MBMG112      | Phillips | 27N 28E 03 CDC            | 07 21 76                        | Well                                       | Domestic and stock use    | 2000                                 |                     | no              | 2550                     |                                   | 360                    |                 | Lary J-S Cattle Co. |
| 177        | MBMG114      | Phillips | 27N 29E 06                | 07 21 76                        | Reservoir                                  | Stock reservoir           | 220                                  | 26                  | no              | 2600                     |                                   |                        |                 |                     |

HAYRE 1' x 2' Sheet (Cont.)  
Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Folio<br>no. | County          | Location           | Collection<br>date | Flow or yield<br>estimated<br>M <sup>3</sup> /year | Site description          | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name               |
|-------------|--------------|-----------------|--------------------|--------------------|--|---------------------------|--------------------------------------|---------------------|-----------------|-------------------|------------------------|-----------------|----------------------------|
| 178 MBMG110 | Phillips     | 27N 27E 25      | Well               |                    |  | Domestic use              | 3300                                 | 22                  | no              | 2300              | 5                      | 350             | Taylor<br>Dart             |
| 179 MBMG107 | Phillips     | 28N 28E 35      | 07 21 76 Well      |                    | 13 gpm   |                           | 4360                                 | 16                  | no              | 2550              |                        |                 | Blitter<br>Graham          |
| 180 MBMG108 | Phillips     | 28N 28E 35      | 07 21 76 Reservoir |                    | 8 gpm  | Irrigation reservoir      | 260                                  | 25                  | no              | 2550              |                        |                 |                            |
| 181 MBMG109 | Phillips     | 28N 29E 30      | 07 21 76 Well      |                    | 2 gpm  | Domestic and stock use    | 670                                  | 12                  | no              | 2550              |                        |                 |                            |
| 182 MBMG5   | Phillips     | 36N 28E 07 ADDA | 07 22 76 Well      |                    | 20 gpm   |                           | 1190                                 | 8.8                 | no              | 2850              | 13                     | 15              |                            |
| 183 MBMG20  | Phillips     | 35N 25E 09 ADDA | 07 22 76 Well      |                    | 10 gpm   | Domestic use              | 2450                                 | 18.2                | no              | 3070              | 300                    |                 | Graham<br>Tuma             |
| 184 MBMG48  | Phillips     | 31N 29E 30 CDUD | 07 21 76 Well      |                    | 3 gpm  | Domestic use              | 2580                                 | 19.8                | no              | 2500              | 173                    | 186             |                            |
| 185 MBMG49  | Phillips     | 31N 29E 31 BDIC | 07 21 76 Creek     |                    | 0.75 cfs   | Small creek               | 2340                                 | 22.6                | no              | 2440              | 30                     |                 | Duck<br>Houd, D            |
| 186 MBMG53  | Hill         | 36N 16E 19 AAB8 | 04 11 76 Well      |                    | 4 gpm  | Stock use                 | 1000                                 | 18                  | no              | 2480              | 80                     | 130             |                            |
| 187 MBMG68  | Phillips     | 28N 28E 09      | 07 21 76 Well      |                    |  | Domestic use              |                                      |                     |                 |                   |                        |                 |                            |
| 188 MBMG106 | Phillips     | 28N 28E 01      | 07 23 76 Creek     |                    |  |                           | 110                                  | 26                  | no              | 2500              |                        |                 |                            |
| 189 MBMG105 | Phillips     | 28N 28E 22      | 07 23 76 Creek     |                    | 6 gpm  | Domestic and stock use    | 200                                  | 20                  | no              | 2600              |                        |                 |                            |
| 190 MBMG113 | Phillips     | 28N 28E 11      | 07 23 76 Well      |                    | 12 gpm   | Domestic and stock use    | 2740                                 | 15                  | no              | 2670              | 90                     | 450             | Taylor, H<br>White         |
| 191 MBMG69  | Phillips     | 34N 18E 35 CCA  | 07 18 Ditch        |                    |  | Irrigation ditch          | 5000                                 | 8                   | no              | 2550              | 300                    |                 |                            |
| 192 MBMG5   | Blaine       | 34N 18E 35 CCA  | 07 18 Ditch        |                    |  |                           | 830                                  | 22                  | no              | 2440              |                        |                 |                            |
| 193 MBMG5   | Blaine       | 36N 19E 08      | 07 07 76 Creek     |                    |  | Domestic use              | 1120                                 | 24                  | no              | 2650              |                        |                 |                            |
| 194 MBMG7   | Blaine       | 36N 19E 10      | 07 07 76 Creek     |                    |  | Domestic use              | 930                                  | 11                  | no              | 2100              | 16                     |                 | Karlzschner<br>Karlzschner |
| 195 MBMG8   | Blaine       | 36N 19E 10      | 07 07 76 Creek     |                    |  | Stock reservoir           | 930                                  | 18                  | no              | 2650              |                        |                 |                            |
| 196 MBMG13  | Blaine       | 36N 20E 32      | 07 08 76 Reservoir |                    |  | Stock reservoir           | 190                                  | 22.9                | no              | 2160              |                        |                 |                            |
| 197 MBMG14  | Blaine       | 36N 20E 04      | 07 08 76 Reservoir |                    |  |                           | 260                                  | 22                  | no              | 2750              |                        |                 | Stephens, J                |
| 198 MBMG15  | Blaine       | 36N 20E 09      | 07 08 76 Creek     |                    |  |                           | 420                                  | 20.1                | no              | 2780              |                        |                 |                            |
| 199 MBMG16  | Blaine       | 36N 20E 08      | 07 08 76 Reservoir |                    |  |                           | 260                                  | 22.1                | no              | 2770              |                        |                 |                            |
| 200 MBMG17  | Blaine       | 36N 20E 06      | 07 08 76 Creek     |                    |  | Coral Coulee              | 260                                  | 22                  | no              | 2750              |                        |                 | Stephens, J<br>Stephens, J |
| 201 MBMG18  | Blaine       | 36N 20E 06      | 07 08 76 Spring    |                    |  | Tributary to Coral Coulee | 380                                  | 20                  | no              | 2730              |                        |                 |                            |
| 202 MBMG19  | Blaine       | 36N 20E 03      | 07 08 76 Creek     |                    |  | Tributary to Coral Coulee | 370                                  | 23                  | no              | 2850              |                        |                 |                            |
| 203 MBMG57  | Blaine       | 33N 19E 34      | 07 08 76 Well      |                    |  | Domestic use              | 2820                                 | 12                  | no              | 2430              | 7100                   |                 | Svensen, R. E              |
| 204 MBMG40  | Hill         | 29N 14E 02 B    | 01 23 76 Creek     |                    |  | Lookout Creek             | 34                                   |                     | yes             | 3240              |                        |                 |                            |
| 205 MBMG52  | Hill         | 29N 14E 02 B    | 06 19 74 Creek     |                    |  | Lookout Creek             | 15                                   | 4.4                 | yes             | 3240              |                        |                 |                            |
| 206 MBMG62  | Hill         | 29N 14E 02 B    | 06 19 74 Creek     |                    |  | Lookout Creek             | 11                                   | 6                   | yes             | 3240              |                        |                 |                            |
| 207 MBMG60  | Hill         | 29N 14E 02 B    | 06 18 74 Creek     |                    |  | Lookout Creek             | 8                                    | 7.7                 | yes             | 3240              |                        |                 |                            |

HAVRE 1° x 2° Sheet (Cont.)  
Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref  | Field<br>number | County   | Location<br>T R Sec Trect | Collection<br>date Mo Day Yr | Source       | Flow or yield<br>E = estimated<br>M = measured | Site description                      | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft) | Static<br>water<br>level<br>(ft) | Well<br>depth<br>(ft) | Aquifer<br>code | Owner name         |
|-------------|-----------------|----------|---------------------------|------------------------------|--------------|--|---------------------------------------|--------------------------------------|---------------------|-----------------|------------------|----------------------------------|-----------------------|-----------------|--------------------|
| 208 74N0905 |                 | Blaine   | 29N 14E 08 B              | 07 28 74                     | Creek        |  | Lookout Creek                         | 14                                   | 12                  | yes             | 3240             |                                  |                       |                 |                    |
| 209 74N0905 |                 | Blaine   | 29N 14E 08 B              | 07 28 74                     | Creek        |  | Lookout Creek                         | 18                                   | 10                  | yes             | 3240             |                                  |                       |                 |                    |
| 210 74N0219 |                 | Blaine   | 31N 21E 26 B00B           | 04 11 75                     | Well         |  | Shallow well N.E. of<br>Lookout Creek | 7720                                 | 14                  | yes             | 2130             | 43                               |                       | 59 211CLGT      | Harlem             |
| 211 59M0003 |                 | Blaine   | 31N 24E 01 DA             | 10 59                        | Well         |  | Located 0.1 mile S of Savoy           | 4120                                 | 8.3                 | yes             | 2330             |                                  |                       | 145 110ALVM     |                    |
| 212 59M0004 |                 | Blaine   | 31N 25E 13 ACCC           | 10 59                        | Well         | 10 gpm   | Located 1.2 miles SE of Cuburg        | 3860                                 | 8.3                 | yes             | 2290             | 110                              | 167 211JDRV           |                 | Chandlerian, B     |
| 213 47M0025 |                 | Blaine   | 31N 25E 21 AD             | 02 47                        | Well         |  | Located 2.7 miles SE of Cuburg        |                                      |                     | yes             | 2300             |                                  |                       | 100 110ALVM     |                    |
| 214 59M0005 |                 | Blaine   | 32N 23E 26 BC             | 10 59                        | Well         | 8 gpm  | Located 3.5 miles SE of Harlem        | 5470                                 | 8.3                 | yes             | 2330             | 8                                |                       | 70 110ALVM      | Pitch, G           |
| 215 59M0006 |                 | Blaine   | 32N 23E 26 BC             | 10 59                        | Well         |  | Located 3.8 miles E SE of Harlem      | 4420                                 | 10                  | yes             | 2340             |                                  |                       | 130 110ALVM     |                    |
| 216 59M0007 |                 | Blaine   | 32N 23E 31 AB             | 10 59                        | Well         |  | Located 2.3 miles SE of Harlem        | 3300                                 | 10                  | yes             | 2340             |                                  |                       | 70 110ALVM      |                    |
| 217 49M0003 |                 | Blaine   | 32N 23E 36 AC             | 06 49                        | Well         | 6 gpm  | Located 5.2 miles SE of Harlem        |                                      |                     | yes             | 2320             |                                  |                       | 120 110ALVM     | Eggen, R           |
| 218 59M0008 |                 | Blaine   | 32N 24E 33 DC             | 10 59                        | Well         |  | Located 3.7 miles NW of Savoy         | 5270                                 | 8.3                 | yes             | 3220             |                                  |                       | 240 110ALVM     |                    |
| 219 47M0026 |                 | Blaine   | 34N 23E 01 AB             | 04 47                        | Well         |  | Located 7.8 miles S of Hogland        |                                      |                     | yes             | 3200             |                                  |                       | 240 211HLCK     |                    |
| 220 59M0009 |                 | Blaine   | 34N 24E 13 CD             | 10 59                        | Well         | 5 gpm  | Located 11.8 miles SE of Hogland      | 2420                                 | 10.5                | yes             | 3180             | 100                              |                       | 1210 211JDRV    | Moske, L           |
| 221 59M0010 |                 | Blaine   | 35N 24E 10 BB             | 10 59                        | Well         |  | Located 8 miles SE of Hogland         | 505                                  | 7.7                 | yes             | 3080             |                                  |                       | 49 121FLXV      |                    |
| 222 59M0011 |                 | Blaine   | 35N 25E 27 DD             | 10 59                        | Well         |  | Located 12 miles SE of Hogland        | 1000                                 | 8.8                 | yes             | 3080             |                                  |                       | 22 121FLXV      |                    |
| 223 59M0012 |                 | Blaine   | 36N 23E 25 AD             | 10 59                        | Well         | 15 gpm   | Located 2 miles E of Hogland          | 2080                                 | 9.4                 | yes             | 3140             | 38                               |                       | 49 121FLXV      | Great Northern R R |
| 224 59M0013 |                 | Blaine   | 36N 23E 30 AC             | 10 59                        | Well         |  | Located 5.5 miles W of Hogland        | 852                                  | 7.2                 | yes             | 3100             |                                  |                       | 225 211HLCK     |                    |
| 225 59M0014 |                 | Blaine   | 36N 26N 31 DA             | 10 59                        | Well         |  | Located 3.5 miles E SE of Turner      | 880                                  | 7.8                 | yes             | 3000             |                                  |                       | 39 121FLXV      |                    |
| 226 59M0015 |                 | Blaine   | 36N 26N 31 DA             | 10 59                        | Spring       |  | Located 8.5 miles N NW of Hogland     | 850                                  | 8.3                 | yes             | 3000             |                                  |                       |                 |                    |
| 227 59M0016 |                 | Blaine   | 37N 23E 13 DB             | 10 59                        | Lake         |  | Albat Lake                            | 8310                                 | 8.3                 | yes             | 3000             |                                  |                       |                 |                    |
| 228 59M0017 |                 | Blaine   | 37N 25E 35 BD             | 10 59                        | Creek        |  | Located 5.5 miles N of Turner         | 1180                                 | 4.4                 | yes             | 2900             |                                  |                       |                 |                    |
| 229 74M0144 |                 | Phillips | 32N 28E 34 CB0            | 11 09                        | 73 Well      |  | Stock use                             | 2900                                 | 7.7                 | yes             | 2700             | 220                              |                       |                 | Peave, B.          |
| 230 MBMG220 |                 | Blaine   | 29N 23E 35 CBCC           | 07 07                        | 78 Creek     | 2 gpm (E)                                      | Peoples Creek at USGS gaging station  | 2180                                 | 26.5                | no              | 2720             |                                  |                       |                 |                    |
| 231 MBMG231 |                 | Blaine   | 29N 23E 34 DADC           | 07 07                        | 78 Well      | > 60 gpm (M)                                   | Peoples Creek at USGS gaging station  | 3660                                 | 11.3                | no              | 2740             | flowing                          |                       |                 | Bruell, T.         |
| 232 MBMG232 |                 | Blaine   | 28N 23E 25 BCCC           | 07 07                        | 76 Reservoir |  | Stock reservoir                       | 890                                  | 20.9                | no              | 2840             |                                  |                       |                 |                    |
| 233 MBMG233 |                 | Blaine   | 27N 23E 13 CCBB           | 07 07                        | 78 Creek     |  | Little Peoples Creek                  | 750                                  | 23.1                | no              | 2980             |                                  |                       |                 |                    |
| 234 MBMG234 |                 | Blaine   | 26N 23E 14 DAAD           | 07 07                        | 78 Creek     | 20 cfs   | Little Peoples Creek                  | 480                                  | 22                  | no              | 2980             |                                  |                       |                 |                    |
| 235 MBMG235 |                 | Blaine   | 27N 22E 20 DDAB           | 07 07                        | 78 Reservoir |  | Peoples Creek                         | 80                                   | 17.8                | no              | 3170             |                                  |                       |                 |                    |
| 236 MBMG236 |                 | Blaine   | 27N 22E 21                | 07 07                        | 75 Reservoir |  | Murphy area near reservoir            | 80                                   | 28.9                | no              |                  |                                  |                       |                 |                    |
| 237 MBMG237 |                 | Blaine   | 27N 22E 16 BCCB           | 07 07                        | 78 Reservoir |  |                                       | 1240                                 | 27                  | no              | 3090             |                                  |                       |                 |                    |



## HAYRE 1' x 2' Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>number | County | Location<br>T R Sec. Tract | Collection<br>date<br>Mo Day Yr. | Flow or yield<br>E-estimated<br>M-measured | Site description                             | Spoke<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab.<br>analysis | Altitude<br>ft (L) | Static<br>water<br>level<br>ft (L) | Well<br>depth<br>ft (L) | Aquifer<br>code | Owner's name      |
|-------------|-----------------|--------|----------------------------|----------------------------------|--|--|-----------------------------------|----------------------|------------------|--------------------|------------------------------------|-------------------------|-----------------|-------------------|
| 238         | MBMG238         | Blaine | 28N 22E 20 80DB            | 07 07 76                         | Lake                                       | Putnam Lake                                  | 230                               | 24.9                 | no               | 3180               |                                    |                         |                 |                   |
| 239         | MBMG239         | Blaine | 28N 22E 20 80DB            | 07 07 76                         | Well                                       | Stock use                                    | 860                               | 12.5                 | no               | 3790               |                                    |                         |                 |                   |
| 240         | MBMG240         | Blaine | 29N 20E 01 30DB            | 07 08 76                         | Well                                       | Peoples Creek                                | 990                               | 23                   | no               |                    |                                    |                         |                 |                   |
| 241         | MBMG241         | Blaine | 30N 18E 34 0DB             | 07 08 76                         | Reservoir                                  | Stock reservoir                              | 730                               | 22                   | no               |                    |                                    |                         |                 |                   |
| 242         | MBMG242         | Blaine | 29N 18E 06 CA8             | 07 08 76                         | Reservoir                                  | Stock reservoir                              | 1310                              | 22                   | no               |                    |                                    |                         |                 | Hallett, P        |
| 243         | MBMG243         | Blaine | 29N 18E 14 CAA             | 07 08 76                         | Creek                                      | 1 cfs  | 310                               | 12.5                 | no               |                    |                                    |                         |                 |                   |
| 244         | MBMG244         | Blaine | 28N 18E 05 CDB             | 07 08 76                         | Creek                                      | Battle Creek                                 | 400                               | 18.2                 | no               | 4400               |                                    |                         |                 |                   |
| 245         | MBMG245         | Blaine | 28N 18E 01 CAD0            | 07 08 76                         | Reservoir                                  | Irrigation use                               | 460                               | 21                   | no               | 4200               |                                    |                         |                 |                   |
| 246         | MBMG246         | Blaine | 28N 17E 02 DDBA            | 07 08 76                         | Creek                                      | Battle Creek                                 | 600                               | 19                   | no               | 4060               |                                    |                         |                 |                   |
| 247         | MBMG247         | Blaine | 28N 17E 02 DDBA            | 07 08 76                         | Creek                                      | 5.6 cfs                                      | 420                               | 18.1                 | no               | 4060               |                                    |                         |                 |                   |
| 248         | MBMG248         | Blaine | 26N 18E 08 8               | 07 08 76                         | Creek                                      | 30 gpm                                       | 1000                              | 27.6                 | no               | 3650               |                                    |                         |                 |                   |
| 249         | MBMG249         | Blaine | 29N 23E 01 BACA            | 07 09 76                         | Reservoir                                  | Black Coulees<br>Dismal Reservoir            | 950                               | 22.8                 | no               | 2635               |                                    |                         |                 |                   |
| 250         | MBMG250         | Blaine | 29N 25E 18 DBCD            | 07 09 76                         | Creek                                      | Peoples Creek                                | 1280                              | 25.5                 | no               |                    |                                    |                         |                 |                   |
| 251         | MBMG251         | Blaine | 29N 25E 11 CDBA            | 07 09 76                         | Creek                                      | Peoples Creek                                | 1280                              | 25.5                 | no               |                    |                                    |                         |                 |                   |
| 252         | MBMG252         | Blaine | 29N 25E 26 CDB             | 07 09 76                         | Reservoir                                  | Stock reservoir                              | 870                               | 24                   | no               |                    |                                    |                         |                 |                   |
| 253         | MBMG253         | Blaine | 27N 24E 20 ACCD            | 07 09 76                         | Reservoir                                  | Stock reservoir                              | 250                               | 35                   | no               |                    |                                    |                         |                 |                   |
| 254         | MBMG254         | Blaine | 27N 24E 20 DDCD            | 07 09 76                         | Creek                                      | 0.14 cfs                                     | 810                               | 24                   | no               |                    |                                    |                         |                 |                   |
| 255         | MBMG255         | Blaine | 28N 23E 31                 | 07 09 76                         | Well                                       | Domestic use                                 | 860                               | 25.1                 | no               |                    |                                    |                         |                 | Glabes            |
| 256         | MBMG256         | Blaine | 30N 23E 03 DDB             | 07 10 76                         | Well                                       | Three Mile Creek                             | 2700                              | 17.8                 | no               | 2630               | 180                                |                         |                 |                   |
| 257         | MBMG257         | Blaine | 31N 23E 16                 | 07 10 76                         | Creek                                      |  | 1720                              | 17.9                 | no               | 2410               |                                    |                         |                 |                   |
| 258         | MBMG258         | Blaine | 31N 24E 03                 | 07 10 76                         | Well                                       | Domestic use                                 | 6620                              | 14.9                 | no               | 2320               |                                    |                         |                 |                   |
| 259         | MBMG259         | Blaine | 30N 24E 12 AAB8            | 07 10 76                         | Reservoir                                  | Stock reservoir                              | 380                               | 26.8                 | no               | 2600               |                                    |                         |                 | Horn              |
| 260         | MBMG260         | Blaine | 30N 24E 23 CAC             | 07 10 76                         | Pond                                       |  | 23900                             | 31.5                 | no               | 2620               |                                    |                         |                 |                   |
| 261         | MBMG261         | Blaine | 30N 24E 23 CBAD            | 07 10 76                         | Pond                                       |  | 680                               | 30                   | no               | 2628               |                                    |                         |                 |                   |
| 262         | MBMG262         | Blaine | 30N 24E 23 DB              | 07 10 76                         | Creek                                      |  | 1080                              | 30.5                 | no               | 2510               |                                    |                         |                 |                   |
| 263         | MBMG263         | Blaine | 33N 19E 23                 | 07 09 76                         | Well                                       | Domestic use                                 | 1620                              | 17.7                 | no               |                    | 20                                 |                         |                 | Reed              |
| 264         | MBMG264         | Blaine | 33N 19E 24                 | 07 09 76                         | Ditch                                      | Irrigation ditch                             | 380                               | 20.8                 | no               |                    |                                    |                         |                 |                   |
| 265         | MBMG265         | Blaine | 33N 19E 25                 | 07 09 76                         | Well                                       | Stock and domestic use (except for drinking) | 2220                              | 8.8                  | no               |                    |                                    |                         |                 | Cross             |
| 266         | MBMG266         | Blaine | 33N 20E 28                 | 07 09 76                         | Well                                       |  | 1700                              | 8.8                  | no               |                    |                                    |                         |                 | Flynn Bros. Ranch |
| 267         | MBMG267         | Blaine | 33N 20E 28                 | 07 09 76                         | Creek                                      |  | 780                               | 20                   | no               |                    |                                    |                         |                 | Flynn Bros. Ranch |

HAVRE 1' x 2' Sheet (Con't.)  
 Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>number | County | Location<br>T R Sec. Tract | Collection<br>date<br>Mo Day Yr. | Flow or yield<br>E = estimated<br>M = measured | Site description                 | Specific<br>conductivity<br>at 25° C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>depth<br>(ft.) | Well<br>code | Donor name    |
|-------------|-----------------|--------|----------------------------|----------------------------------|--|----------------------------------|--------------------------------------|---------------------|-----------------|-------------------|--|--------------|---------------|
| 268         | NBMG268         | Blaine | 33N 21E 30                 | 07 09 76 Creek                   |  | Stock reservoir                  | 370                                  | 21                  | no              |                   |  |              |               |
| 269         | NBMG269         | Blaine | 33N 21E 07                 | 07 09 76 Reservoir               |  | Stock reservoir                  | 350                                  | 24.7                | no              |                   |  |              |               |
| 270         | NBMG270         | Blaine | 34N 20E 36                 | 07 09 76 Reservoir               |  | Stock reservoir                  | 460                                  | 21                  | no              |                   |  |              |               |
| 271         | NBMG271         | Blaine | 34N 21E 31                 | 07 09 76 Reservoir               |  | Stock reservoir                  | 400                                  | 21.5                | no              |                   |  |              |               |
| 272         | NBMG272         | Blaine | 34N 21E 20                 | 07 09 76 Creek                   |  |                                  | 330                                  | 17.2                | no              |                   |  |              |               |
| 273         | NBMG273         | Blaine | 33N 21E 27                 | 07 09 76 Well                    |  | Domestic use                     | 600                                  | 14.5                | no              |                   | 60   |              | Lemarré       |
| 274         | NBMG274         | Blaine | 33N 21E 27                 | 07 09 76 Well                    |  | Water has a sulphur smell        | 2350                                 | 12.8                | no              |                   | 170  |              | Miller        |
| 275         | NBMG275         | Blaine | 33N 21E 35                 | 07 09 76 Canal                   |  | Irrigation canal                 | 360                                  | 21                  | no              |                   |  |              | Miller        |
| 276         | NBMG276         | Blaine | 33N 21E 04                 | 07 09 76 Well                    |  | Domestic use                     | 2040                                 | 11.5                | no              |                   | 40   |              | Green         |
| 277         | NBMG277         | Blaine | 32N 22E 04                 | 07 09 76 Canal                   |  | Irrigation canal                 | 450                                  | 19.8                | no              |                   |  |              | Green         |
| 278         | NBMG278         | Blaine | 32N 22E 04                 | 07 09 76 Well                    |  | Domestic and stock use           | 1650                                 | 9                   | no              |                   | 350  |              | Benbo         |
| 279         | NBMG279         | Blaine | 32N 22E 05                 | 07 09 76 Well                    |  | Domestic use                     | 2030                                 | 12.2                | no              |                   |  |              | Perkins       |
| 280         | NBMG280         | Blaine | 33N 22E 31                 | 07 09 76 Well                    | 40 gum   | Domestic use except for drinking | 2440                                 | 9.4                 | no              |                   | 80   |              | Miller        |
| 281         | NBMG281         | Blaine | 33N 22E 31                 | 07 09 76 Well                    | 40 gum   |                                  | 2410                                 | 6.8                 | no              | flowing           | 120  |              | Miller        |
| 282         | NBMG282         | Blaine | 33N 20E 27                 | 07 09 76 Creek                   |  | Battle Creek                     | 900                                  | 22.2                | no              |                   |  |              |               |
| 283         | NBMG283         | Blaine | 32N 22E 11                 | 07 10 76 Well                    |  | Domestic use except for drinking | 1690                                 | 13.2                | no              |                   | 120  |              | Murphy        |
| 284         | NBMG284         | Blaine | 32N 22E 11                 | 07 10 76 Well                    |  | Stock use                        | 2060                                 | 12                  | no              |                   | 120  |              | Murphy        |
| 285         | NBMG285         | Blaine | 32N 22E 11                 | 07 10 76 Canal                   |  | Irrigation canal                 | 440                                  | 13.8                | no              |                   |  |              | Covell        |
| 286         | NBMG286         | Blaine | 33N 22E 12                 | 07 10 76 Well                    |  | Stock reservoir                  | 260                                  | 21.8                | no              |                   |  |              |               |
| 287         | NBMG287         | Blaine | 33N 22E 04                 | 07 10 76 Reservoir               |  |                                  |                                      |                     |                 |                   |  |              |               |
| 288         | NBMG288         | Blaine | 33N 22E 03                 | 07 10 76 Reservoir               |  |                                  | 310                                  | 22                  | no              |                   |  |              | Norris dagger |
| 289         | NBMG289         | Blaine | 34N 23E 14                 | 07 10 76 Spring                  |  | Domestic and stock use           | 1070                                 | 13.2                | no              |                   |  |              |               |
| 290         | NBMG290         | Blaine | 35N 23E 20                 | 07 10 76 Reservoir               |  | Domestic use                     | 380                                  | 20                  | no              |                   |  |              | Snyder        |
| 291         | NBMG291         | Blaine | 35N 23E 20                 | 07 10 76 Well                    |  | Domestic use                     | 620                                  | 9.6                 | no              |                   | 99   |              | Snyder        |
| 292         | NBMG292         | Blaine | 35N 23E 09                 | 07 10 76 Spring                  |  | Domestic use                     | 580                                  | 11.5                | no              |                   |  |              |               |
| 293         | NBMG293         | Blaine | 35N 23E 08                 | 07 10 76 Well                    |  | Domestic use                     | 530                                  | 11.8                | no              |                   | 90   |              | Johnson       |
| 294         | NBMG294         | Blaine | 35N 23E 09                 | 07 10 76 Reservoir               |  | Domestic use                     | 380                                  | 22.2                | no              |                   |  |              |               |
| 295         | NBMG295         | Blaine | 31N 24E 01 A D A           | 07 11 78 Well                    |  | Domestic use                     | 2950                                 | 15.5                | no              |                   | 33   |              | Baker, D E    |
| 296         | NBMG296         | Blaine | 31N 24E 13                 | 07 11 78 Well                    |  | Domestic and stock use           | 2380                                 | 13                  | no              |                   | 1240                                       | 117JDRV      | Modic         |
| 297         | NBMG297         | Blaine | 34N 24E 13                 | 07 11 78 Well                    |  | Stock use                        | 2790                                 | 11                  | no              |                   | 90   |              |               |

HAVRE 1° x 2° Sheet (Cont.)  
Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref | Field<br>number | County | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description  | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>feet<br>(ft) | Static<br>water level<br>feet<br>(ft) | Well<br>depth<br>(ft) | Aquifer<br>code | Owner's name |
|------------|-----------------|--------|---------------------------|---------------------------------|--|-------------------|--------------------------------------|---------------------|-----------------|--------------------------|---------------------------------------|-----------------------|-----------------|--------------|
| 298 MBMG44 |                 | Hill   | 31N 14E 20 DDDA           | 01 11 77                        | Well   | Stock use         | 7472                                 | 6                   | yes             | 2810                     | 24                                    | 112DRFT               |                 | Johanson     |
| 299 MBMG50 |                 | Burne  | 32N 20E 34                | 12 21 76                        | Well   | Domestic use      | 1801                                 | 10                  | yes             | 2840                     | 16                                    | 20 211CLGT            |                 | Weiburnton   |
| 300 MBMG69 |                 | Burne  | 31N 20E 05 DDA            | 07 09 76                        | Well   | Domestic use      | 1360                                 |                     | no              | 2840                     |                                       |                       |                 | Nelson       |
| 301 MBMG70 |                 | Burne  | 32N 20E 34 CC             | 07 09 76                        | Well   | Domestic use      | 1930                                 | 12.5                | no              | 2840                     | 16                                    | 20 1127ILL            |                 | Weiburnton   |
| 302 MBMG68 |                 | Burne  | 31N 20E 05 DAD            | 07 09 76                        | Well   | Domestic use      | 2170                                 |                     | no              | 2160                     | flowing                               | 135 211DRIV           |                 | Tillman      |
| 303 MBMG72 |                 | Burne  | 31N 20E 03 AB             | 07 09 76                        | Well   | Domestic use      | 1960                                 | 13                  | no              | 2800                     | 10                                    | 25                    |                 | William      |
| 304 MBMG11 |                 | Burne  | 26N 22E 08 ADD            | 07 07 76                        | Creek  | Pool in creek bed | 1170                                 | 30.2                | no              | 3010                     |                                       |                       |                 |              |
| 305 MBMG10 |                 | Burne  | 26N 22E 03 DADB           | 07 07 76                        | Reservoir                                      | Small reservoir   | 250                                  | 24.6                | no              | 3120                     |                                       |                       |                 |              |

## Chemical Analyses

| Anal. ref. no. | Loc. T | Loc. R | Loc. Sec | Loc. Tract | Collection date Mo Day Yr | Source | Calcium (Ca) | Magnesium (Mg) | Sodium (Na) | Potassium (K) | Iron (Fe) | Manganese (Mn) | Silica (SiO <sub>2</sub> ) | Bicarbonate (HCO <sub>3</sub> ) | Carbonate (CO <sub>3</sub> ) | Chloride (Cl) | Sulfate (SO <sub>4</sub> ) |
|----------------|--------|--------|----------|------------|---------------------------|--------|--------------|----------------|-------------|---------------|-----------|----------------|----------------------------|---------------------------------|------------------------------|---------------|----------------------------|
| 37             | 34N    | 14E    | 26       | DDOD       | 01 11 77                  | Well   | 31           | 16.2           | 1000        | 3.7           | .24       | .03            | 9.4                        | 986                             |                              | 221           | 1198                       |
| 47             | 35N    | 16E    | 33       | AUC        | 01 11 77                  | Well   | 15.1         | 3.1            | 1215        | 3.6           | .03       | .02            | 72                         | 428                             |                              | 1725          | 1.9                        |
| 55             | 35N    | 16E    | 18       | ADDB       | 11 11 77                  | Well   | 251          | 56             | 143         | 6.3           | .09       | .42            | 19.6                       | 454                             |                              | 155           | 527                        |
| 64             | 37N    | 14E    | 20       | DDOD       | 01 11 77                  | Well   | 421          | 158            | 438         | 6.4           | .19       | .78            | 35.7                       | 159                             |                              | 124           | 2232                       |
| 83             | 32N    | 18E    | 34       | A          | 12 22 76                  | Well   | 514          | 364            | 1570        | 7.4           | .07       | .01            | 15                         | 325                             |                              | 147           | 5203                       |
| 88             | 32N    | 19E    | 02       |            | 12 21 76                  |        | 180          | 60             | 87.5        | 5             | .01       | .2             | 16.5                       | 319                             |                              | 46            | 541                        |
| 90             | 31N    | 19E    | 13       |            | 12 22 76                  | Well   | 130          | 128            | 200         | 5.3           | <.01      | .01            | 12.2                       | 587                             |                              | 110           | 515                        |
| 97             | 32N    | 20E    | 03       | B          | 12 21 76                  | Well   | 4.1          | 1.1            | 705         | 2             | .04       | <.01           | 8.1                        | 950                             | 17.8                         | 121           | 540                        |
| 99             | 33N    | 21E    | 31       |            | 12 21 76                  | Well   | 2.5          | .5             | 552         | 4             | .11       | .03            | 8.6                        | 995                             | 19.7                         | 41            | 3                          |
| 109            | 33N    | 21E    | 30       |            | 12 21 76                  | Well   | 235          | 110            | 362         | 5.4           | .02       | .09            | 17.2                       | 649                             |                              | 70            | 1120                       |
| 112            | 32N    | 20E    | 34       | C8         | 12 21 76                  | Well   | 6.5          | 5.8            | 516         | 1.7           | <.01      | <.01           | 5.8                        | 900                             | 24                           | 295           | 232                        |
| 116            | 31N    | 19E    | 13       | AAAC       | 12 22 76                  | Well   | 78           | 81.5           | 160         | 2.7           | .42       | .05            | 13.1                       | 600                             |                              | 93.5          | 244                        |
| 124            | 31N    | 18E    | 21       |            | 12 22 76                  | Well   | 207          | 163            | 214         | 16.5          | 6.4       | 3.94           | 10.3                       | 531                             |                              | 46            | 1130                       |
| 125            | 31N    | 18E    | 21       |            | 12 22 76                  | Well   | 254          | 228            | 203         | 3.8           | .14       | .09            | 17.6                       | 720                             |                              | 33            | 1299                       |
| 204            | 29N    | 14E    | 02       | B          | 01 23 75                  | Creek  |              |                |             |               |           |                |                            | 34                              |                              |               |                            |
| 205            | 29N    | 14E    | 02       | B          | 05 19 74                  | Creek  |              |                |             |               |           |                |                            | 7                               |                              |               |                            |
| 206            | 29N    | 14E    | 02       | B          | 06 11 74                  | Creek  |              |                |             |               |           |                |                            | 5                               |                              |               |                            |
| 207            | 28N    | 14E    | 02       | B          | 06 18 74                  | Creek  |              |                |             |               |           |                |                            | 5                               |                              |               |                            |
| 208            | 29N    | 14E    | 02       | B          | 07 28 74                  | Creek  |              |                |             |               |           |                |                            | 7                               |                              |               |                            |
| 209            | 29N    | 14E    | 02       | B          | 08 16 74                  | Creek  |              |                |             |               |           |                |                            | 8                               |                              |               |                            |
| 210            | 31N    | 21E    | 25       | BDDB       | 04 11 76                  | Well   | 396          | 148            | 1475        | 18            | .28       | .03            | 12.7                       | 532                             |                              | 117           | 3881                       |
| 211            | 31N    | 24E    | 01       | DA         | 10 59                     | Well   | 60           | 26             | 898         | 5.3           | 5.8       |                | 18                         | 1030                            |                              | 287           | 976                        |
| 212            | 31N    | 25E    | 13       | ACCC       | 10 59                     | Well   | 15           | 7.4            | 930         | 4.5           | 2.2       |                | 10                         | 919                             |                              | 221           | 1030                       |
| 213            | 31N    | 25E    | 21       | AD         | 02 47                     | Well   | 76           | 26             | 1298*       |               | 4         |                | 31                         | 732                             |                              | 160           | 2190                       |
| 214            | 32N    | 23E    | 26       | BC         | 10 59                     | Well   | 185          | 133            | 1050        | 7.5           | 9.4       |                | 20                         | 964                             |                              | 115           | 2320                       |
| 215            | 32N    | 23E    | 26       | CC         | 10 59                     | Well   | 19           | 5.5            | 1070        | 7.5           | 3.3       |                | 8.4                        | 999                             |                              | 134           | 1390                       |
| 216            | 32N    | 23E    | 31       | A8         | 10 59                     | Well   | 69           | 34             | 685         | 6.6           | 6.8       |                | 19                         | 710                             |                              | 51            | 1160                       |
| 217            | 32N    | 23E    | 36       | AC         | 06 48                     | Well   | 68           | 32             | 897*        |               | 5.0       |                | 144                        | 915                             |                              | 88            | 1314                       |
| 218            | 32N    | 24E    | 33       | DC         | 10 59                     | Well   | 18           | 6              | 1250        | 4.9           | 1.8       |                | 7.5                        | 582                             |                              | 69            | 2200                       |
| 219            | 34N    | 23E    | 01       | A8         | 04 47                     | Well   | 20           | 8              | 325*        |               | .8        |                | 15                         | 406                             |                              | 51            | 318                        |
| 220            | 34N    | 24E    | 13       | CD         | 10 59                     | Well   | 2.4          | 1.9            | 609         | 2.4           | .5        |                | 10                         | 953                             |                              | 166           | 279                        |
| 221            | 35N    | 24E    | 10       | 88         | 10 59                     | Well   | 27           | 30             | 37          | 3.4           | .02       |                | 17                         | 253                             |                              | 7.4           | 52                         |
| 222            | 35N    | 25E    | 27       | DD         | 10 59                     | Well   | 87           | 46             | 69          | 5.4           | .14       |                | 21                         | 318                             |                              | 24            | 228                        |
| 223            | 36N    | 23E    | 25       | AD         | 10 59                     | Well   | 75           | 88             | 266         | 5.2           | .4        |                | 16                         | 310                             |                              | 85            | 737                        |
| 224            | 36N    | 23E    | 30       | AC         | 10 59                     | Well   | 58           | 48             | 200         | 5.7           | 3.2       |                | 12                         | 252                             |                              | 11            | 210                        |
| 225            | 36N    | 26N    | 33       | DA         | 10 59                     | Well   | 46           | 39             | 89          | 5.2           | .12       |                | 20                         | 318                             |                              | 31            | 161                        |
| 226            | 37N    | 23E    | 12       | C8         | 10 59                     | Spring | 39           | 30             | 99          | 6.2           | .08       |                | 13                         | 252                             |                              | 16            | 205                        |
| 227            | 37N    | 23E    | 13       | D8         | 10 59                     | Lake   | 5            | 38             | 1850        | 171           | .01       |                | 4.2                        | 650                             | 1060                         | 2340          |                            |
| 228            | 37N    | 25E    | 35       | 8D         | 10 59                     | Creek  | 39           | 40             | 169         | 6.4           | .02       |                | 13                         | 465                             |                              | 20            | 239                        |
| 229            | 32N    | 28E    | 34       | C8D        | 11 09 73                  | Well   | 20           | 4.4            | 695         | 5.9           | .01       | .04            | 8.6                        | 1066                            |                              | 11.5          | 709                        |
| 298            | 37N    | 14E    | 20       | DDDA       | 01 11 77                  | Well   | 424          | 164            | 1345        | 16            | .84       | 7.7            | 32.3                       | 4                               |                              | 296           | 3862                       |
| 299            | 32N    | 20E    | 34       |            | 12 21 76                  | Well   | 270          | 57             | 22.2        | 3.8           | .01       | .03            | 13.7                       | 352                             |                              | 23            | 584                        |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated.

\* Values reported as sodium plus potassium.

## of Selected Waters

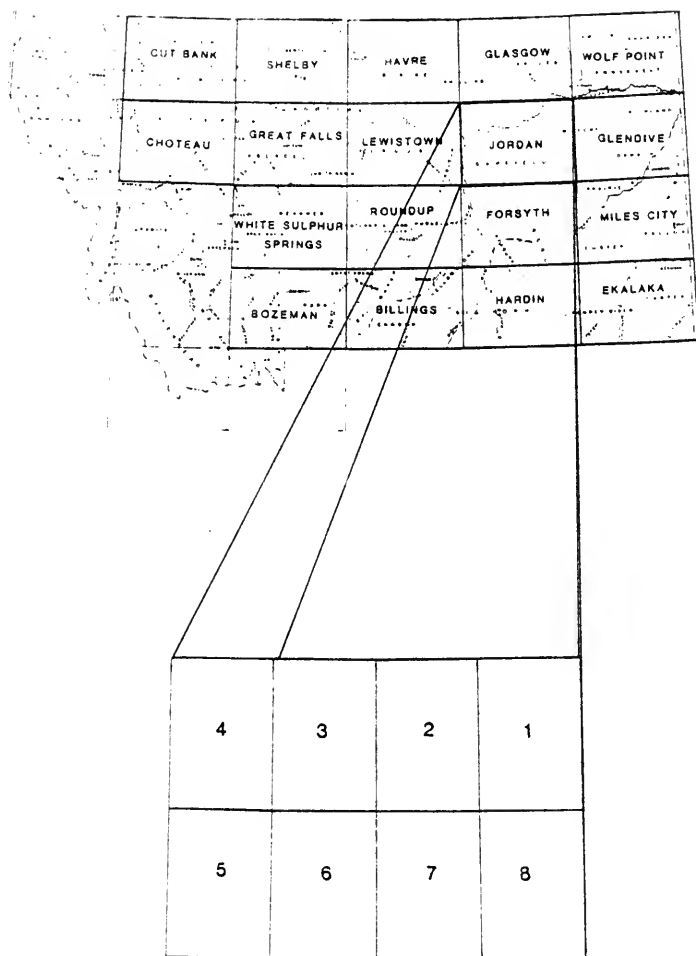
| Map<br>ref.<br>no. | Nitrate<br>(NI) | Fluoride<br>(F) | Lab<br>pH | Field<br>temp.<br>C | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|-----------------|-----------------|-----------|---------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 37                 | .38             | .3              | 7.77      | 10                  | 4306  | 2966                           | 144                                       | 809   | 36.3                          | M8MG                 | 340                    |                 | Yes                           | 76M1577       |
| 47                 | .061            | 1.7             | 7.78      | 6                   | 5645  | 3248                           | 50  | 351   | 74.4                          | M8MG                 | 75                     | 211JDRV         | Yes                           | 76M1581       |
| 55                 | 5.422           | .2              | 7.5       | 11                  | 2023  | 1388                           | 857                                       | 372   | 2.1                           | M8MG                 |                        | 112DRFT         | Yes                           | 76M1580       |
| 64                 | 16.943          | 7               | 6.4       | 10                  | 4110  | 3512                           | 1700                                      | 130   | 4.6                           | M8MG                 | 24                     | 112DRFT         | Yes                           | 76M1578       |
| 83                 | 83.135          | 1.1             | 7.78      | 8                   | 8854  | 8065                           | 2780                                      | 267   | 13                            | M8MG                 | 14                     | 112DRFT         | Yes                           | 76M1530       |
| 88                 | 2.214           | .3              | 7.45      | 13                  | 1554  | 1096                           | 698                                       | 282   | 1.4                           | M8MG                 |                        | 211JDRV         | Yes                           | 76M1525       |
| 90                 | 26.544          | .2              | 7.52      | 12                  | 2204  | 1416                           | 851                                       | 481   | 3                             | M8MG                 | 120                    | 211JDRV         | Yes                           | 76M1526       |
| 97                 | .949            | 2.9             | 8.52      | 8                   | 2749  | 1871                           | 15  | 909   | 79.8                          | M8MG                 | 120                    | 211JDRV         | Yes                           | 76M1524       |
| 99                 | .316            | 3.8             | 8.55      | 13                  | 2342  | 1103                           | 8   | 816   | 83.4                          | M8MG                 | 150                    | 110ALVM         | Yes                           | 76M1522       |
| 109                | 2.078           | .5              | 7.69      | 13                  | 2989  | 2242                           | 1040                                      | 532   | 4.9                           | M8MG                 |                        | 110ALVM         | Yes                           | 76M1523       |
| 112                | 1.039           | 9               | 8.63      | 8                   | 2111  | 1532                           | 41  | 778   | 35.3                          | M8MG                 | 420                    | 211JDRV         | Yes                           | 76M1521       |
| 116                | 2.937           | .3              | 7.38      | 9                   | 1624  | 972                            | 530                                       | 492   | 3.0                           | M8MG                 | 150                    | 211JDRV         | Yes                           | 76M1527       |
| 124                | .059            | .3              | 7.79      | 4                   | 2621  | 2059                           | 1190                                      | 436   | 2.7                           | M8MG                 |                        | 211JDRV         | Yes                           | 76M1529       |
| 125                | 1.005           | .5              | 7.74      | 8                   | 2913  | 2395                           | 1570                                      | 591   | 2.2                           | M8MG                 |                        | 211JDRV         | Yes                           | 76M1528       |
| 204                |                 |                 | 6.67      | 30                  |   | 34                             |   | 28  |                               | Unknown              |                        |                 | No                            | 75M0040       |
| 205                |                 |                 | 6.48      | 4.4                 | 15  |                                |   | 6   |                               | Unknown              |                        |                 | No                            | 74M0445       |
| 206                |                 |                 | 7.25      | 5                   | 11  |                                |   | 4   |                               | Unknown              |                        |                 | No                            | 74M0567       |
| 207                |                 |                 | 7.11      | 7.7                 | 8   |                                |   | 4   |                               | Unknown              |                        |                 | No                            | 74M0600       |
| 208                |                 |                 | 7.18      | 12                  | 14  |                                |   | 6   |                               | Unknown              |                        |                 | No                            | 74M0805       |
| 209                |                 |                 | 7.47      | 10                  | 18  |                                |   | 7   |                               | Unknown              |                        |                 | No                            | 74M0811       |
| 210                | 45.634          | .5              | 7.96      | 14                  | 7725  | 6356                           | 1600                                      | 436   | 16.1                          | M8MG                 | 59                     | 211CLGT         | Yes                           | 76M0239       |
| 211                |                 | 1.0             | 7.6       | 8.3                 | 4120  | 2787                           | 259                                       | 845   | 24                            | USGS                 | 145                    | 110ALVM         | No                            | 59M0003       |
| 212                |                 | 3.2             | 7.6       | 8.3                 | 3960  | 2676                           | 68  | 754   | 49                            | USGS                 | 167                    | 211JDRV         | No                            | 59M0004       |
| 213                |                 |                 |           |                     |   |                                | 297                                       | 600   |                               | USGS                 | 100                    | 110ALVM         | No                            | 47M0025       |
| 214                |                 | .7              | 7.3       | 8.3                 | 5470  | 4316                           | 1010                                      | 791   | 14                            | USGS                 | 70                     | 110ALVM         | No                            | 59M0006       |
| 215                |                 | 1               | 7.8       | 10                  | 4420  | 3131                           | 70  | 819   | 58                            | USGS                 | 130                    | 110ALVM         | No                            | 59M0006       |
| 216                |                 | 1.6             | 7.7       | 10                  | 3300  | 2383                           | 312                                       | 582   | 17                            | USGS                 | 70                     | 110ALVM         | No                            | 59M0007       |
| 217                |                 |                 |           |                     |   |                                | 301                                       | 750   |                               | USGS                 | 120                    | 110ALVM         | No                            | 48M0003       |
| 218                |                 | .6              | 7.70      | 8.3                 | 5220  | 3846                           | 72  | 477   | 64                            | USGS                 | 240                    | 110ALVM         | No                            | 59M0008       |
| 219                |                 |                 |           |                     |   |                                | 830                                       | 333   |                               | USGS                 | 240                    | 211HLCK         | No                            | 47M0026       |
| 220                |                 | 4.5             | 8.00      | 10.6                | 2420  | 1545                           | 14  | 782   | 71                            | USGS                 | 1210                   | 211JDRV         | No                            | 59M0009       |
| 221                |                 | .6              | 7.6       | 7.7                 | 505   | 299                            | 190                                       | 208   | 29                            | USGS                 | 49                     | 121FLXV         | No                            | 59M0010       |
| 222                |                 | .4              | 7.3       | 8.9                 | 1000  | 639                            | 406                                       | 261   | 1.5                           | USGS                 | 22                     | 121FLXV         | No                            | 59M0011       |
| 223                |                 | .6              | 7.5       | 9.4                 | 2080  | 1426                           | 549                                       | 254   | 4.9                           | USGS                 | 49                     | 121FLXV         | No                            | 59M0012       |
| 224                |                 | .3              | 7.1       | 7.2                 | 852   | 672                            | 341                                       | 207   | 4.7                           | USGS                 | 225                    | 211HLCK         | No                            | 59M0013       |
| 225                |                 | .8              | 7.5       | 7.8                 | 883   | 548                            | 274                                       | 259   | 2.3                           | USGS                 | 39                     | 121FLXV         | No                            | 59M0014       |
| 226                |                 | .4              | 7.1       | 8.3                 | 852   | 533                            | 221                                       | 207   | 2.9                           | USGS                 |                        | 110ALVM         | No                            | 59M0015       |
| 227                |                 | .3              | 8.7       | 8.3                 | 8310  | 5789                           | 168                                       | 533   | 61                            | USGS                 |                        |                 | No                            | 59M0016       |
| 228                |                 | .6              | 8         | 4.4                 | 1180  | 766                            | 264                                       | 381   | 4.5                           | USGS                 |                        |                 | No                            | 59M0017       |
| 229                | 8.9             | .5              | 8.17      | 7.7                 | 2900  | 25                             | 68  | 874   | 38.6                          | Private              |                        |                 | No                            | 74M0144       |
| 298                | 40.89           | 1.8             | 4.89      | 8                   | 7472  | 6292                           | 1730                                      | 3   | 14.1                          | M8MG                 | 24                     | 112DRFT         | Yes                           | 76M1529       |
| 299                | 11.07           | .2              | 7.86      | 10                  | 1601  | 1158                           | 909                                       | 289   | .3                            | M8MG                 | 20                     | 211CLGT         | Yes                           | 76M1520       |

## HAVRE 1° x 2° Sheet

## Trace Elements Analysis Sheet

| Map<br>ref. | Location<br>T R Sec Tract | Alu.<br>mg/g | Anti-<br>mony<br>mg/g | Ar.<br>mg/g | Beryll.<br>µg/g | Boron<br>mg/g | Cadm.<br>mg/g | Cobalt<br>mg/g | Copper<br>mg/g | Lead<br>mg/g | Lith. Mer.<br>µg/g | Nickel<br>mg/g | Phosphate<br>(Total)<br>µg/g | Selenium<br>(µg/g) | Silver<br>mg/g | Stron-<br>tium<br>mg/g | Tin<br>mg/g | Zinc<br>mg/g | Lab<br>number |
|-------------|---------------------------|--------------|-----------------------|-------------|-----------------|---------------|---------------|----------------|----------------|--------------|--------------------|----------------|------------------------------|--------------------|----------------|------------------------|-------------|--------------|---------------|
| 37          | 34N 14E 28 CDDD           | <.05         | <.2                   | <2.0        |                 | .93           | <.01          | <.01           | <.01           | <.05         | .26                | <.3            | <.01                         | .016               | 14.            | .91                    | .17         | .29          | 76M1577       |
| 47          | 35N 16E 33 AOC            | <.05         | <.2                   | <2.0        |                 | 1.4           | <.01          | <.01           | .01            | <.05         | .23                | <.3            | <.01                         | .016               | <2.0           | 58                     | 12          | .07          | 76M1581       |
| 55          | 35N 16E 18 ADDB           | <.05         | <.2                   | <2.0        |                 | .15           | <.01          | <.01           | <.01           | <.05         | .16                | <.3            | .02                          | .023               | <2.0           | 1.47                   | .25         | .20          | 76M1580       |
| 64          | 37N 14E 20 DDDD           | .05          | <.2                   | <2.0        | <5.0            | .20           | <.01          | <.01           | .02            | .020         | .40                | <.3            | .15                          | .014               | .425           | 1.78                   | .65         | .85          | 76M1576       |
| 83          | 32N 18E 34 A              | .05          | .35                   | <2.0        |                 | .82           | <.01          | <.01           | .02            | .15          | 1.92               | <.3            | .07                          | .036               | .79            | 6.20                   | 1.27        | .16          | 76M1530       |
| 88          | 32N 19E 02                | <.05         | <.2                   | <2.0        |                 | .28           | <.01          | <.01           | .03            | <.05         | .06                | <.3            | .02                          | .150               | 3.1            | 1.29                   | .32         | 5.50         | 76M1525       |
| 90          | 31N 19E 13                | <.05         | <.2                   | <2.0        |                 | .32           | <.01          | <.01           | .03            | <.05         | .16                | <.3            | .01                          | .033               | 1.40           | 3.35                   | .62         | .11          | 76M1526       |
| 97          | 32N 20E 03 B              | <.05         | <.2                   | <2.0        |                 | 1.6           | <.01          | .04            | <.05           | .15          | <.3                | .01            | .170                         | <2.0               | .23            | <.05                   | .02         | .76M1524     |               |
| 98          | 33N 21E 31                | .09          | <.2                   | <2.0        |                 | 1.8           | <.01          | .01            | <.05           | .10          | <.3                | <.01           | .176                         | <2.0               | .08            | .08                    |             |              | 76M1522       |
| 109         | 33N 21E 30                | <.05         | <.2                   | <2.0        |                 | 5.1           | <.01          | .01            | .05            | .34          | <.3                | .03            | .023                         | <2.0               | 1.92           | .50                    | .04         |              | 76M1523       |
| 112         | 32N 20E 34 C8             | .05          | <.2                   | 2.1         |                 | .90           | <.01          | <.01           | <.01           | <.05         | .13                | <.3            | <.01                         | .052               | <2.0           | .20                    | .10         |              | 76M1521       |
| 115         | 31N 18E 13 AAAC           | <.05         | <.2                   | <2.0        |                 | .27           | <.01          | <.01           | <.01           | <.05         | .13                | <.3            | .01                          | .430               | 2.8            | 2.18                   | .38         | .24          | 76M1527       |
| 125         | 31N 18E 21                | <.05         | <.2                   | <2.0        |                 | .21           | <.01          | <.01           | .06            | .18          | <.3                | .03            | .130                         | <2.0               | 1.61           | .66                    | .05         |              | 76M1528       |
| 126         | 31N 18E 21                | <.05         | <.2                   | <2.0        |                 | .13           | <.01          | <.01           | .06            | .10          | .30                | <.3            | .03                          | .160               | 2.6            | 2.61                   | .40         |              | 76M1529       |
| 210         | 31N 21E 25 BDD8           | .13          | .2                    | <2.0        | <5.1            | 1.3           | .01           | .02            | .02            | .06          | .37                | .41            | .09                          | .033               | 188            | 4.69                   | .30         | .06          | 76M0239       |
| 298         | 37N 14E 20 DDDA           | 9.35         | <.2                   | <2.0        | <5.0            | .52           | <.01          | <.01           | .18            | <.010        | 1.01               | <.3            | .57                          | .098               | 112            | 2.56                   | .85         | .44          | 76M1579       |
| 299         | 32N 20E 34                | .06          | .2                    | <2.0        |                 | .06           | <.01          | <.01           | .03            | <.05         | .02                | <.3            | .03                          | .140               | <2.0           | .69                    | .34         | .31          | 76M1520       |

# LOCATION BASE MAP



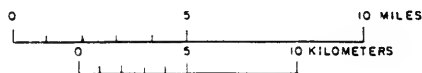
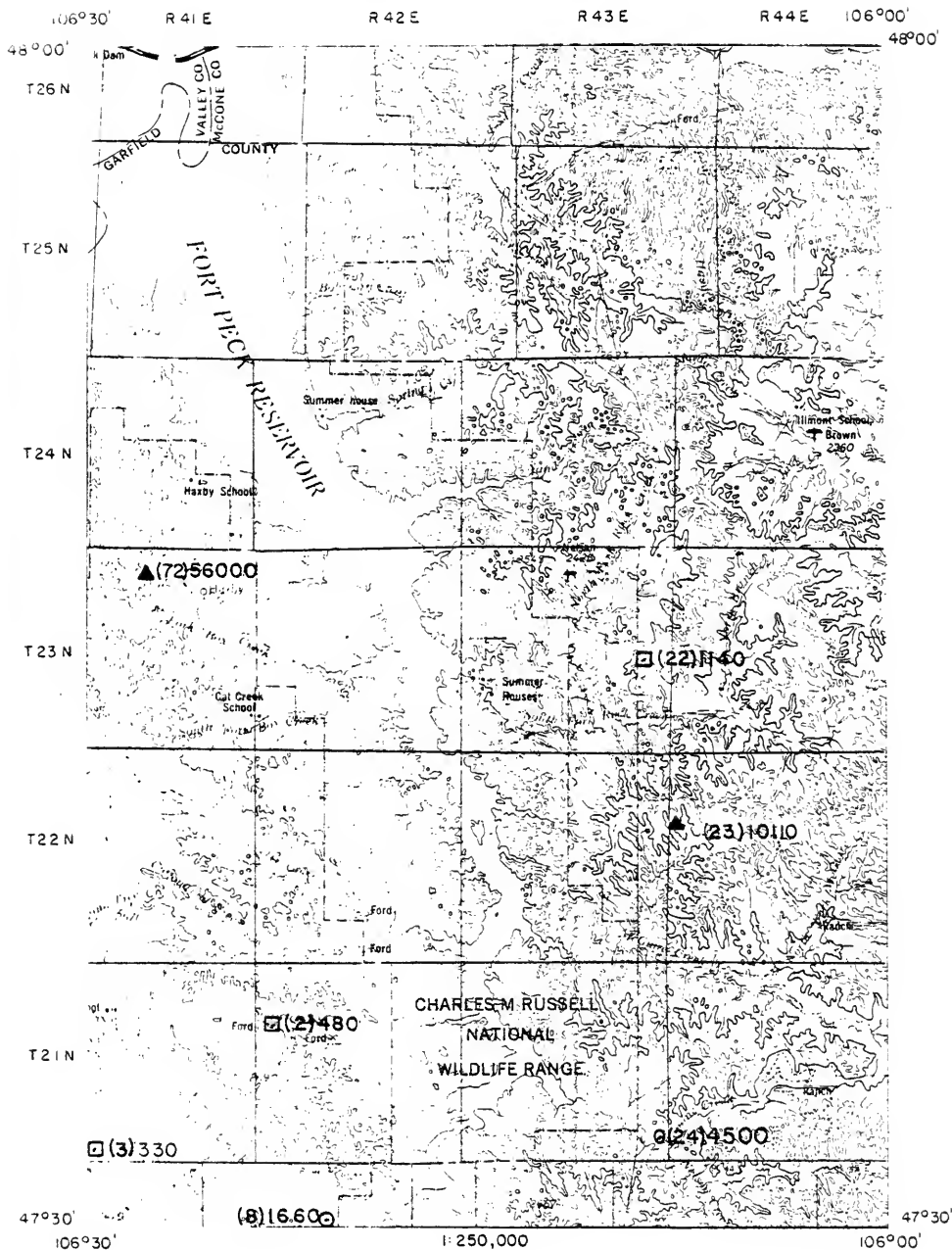
JORDAN 1° x 2° SHEET





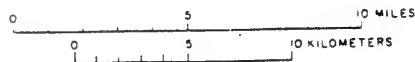
SPECIFIC CONDUCTANCE SURVEY

JORDAN I



CONTOUR INTERVAL 100 FT

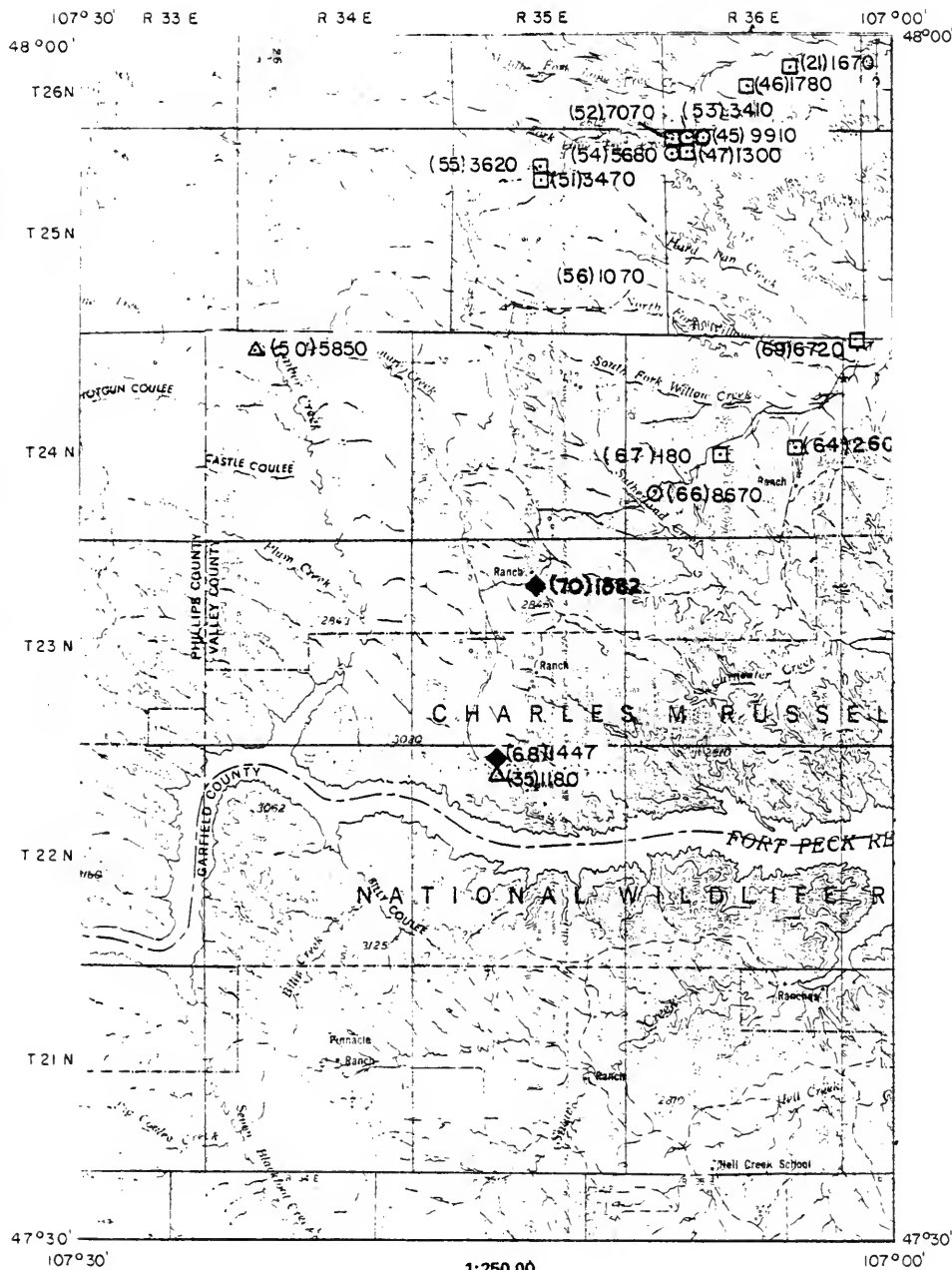
**JORDAN 2**



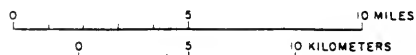
CONTOUR INTERVAL 100 FT

## SPECIFIC CONDUCTANCE SURVEY

JORDAN 3



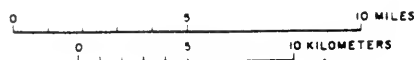
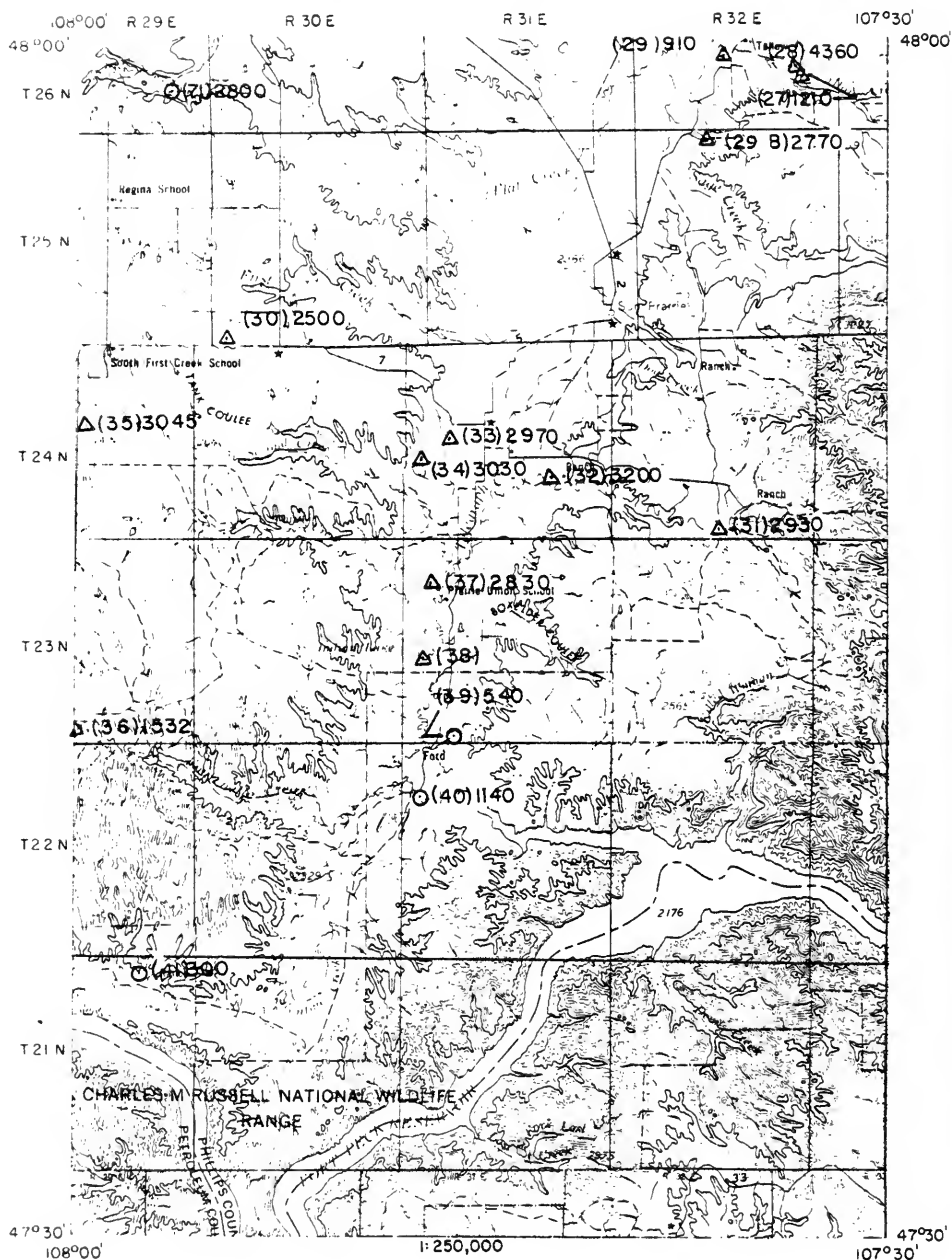
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CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

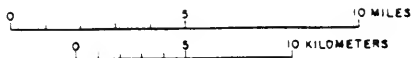
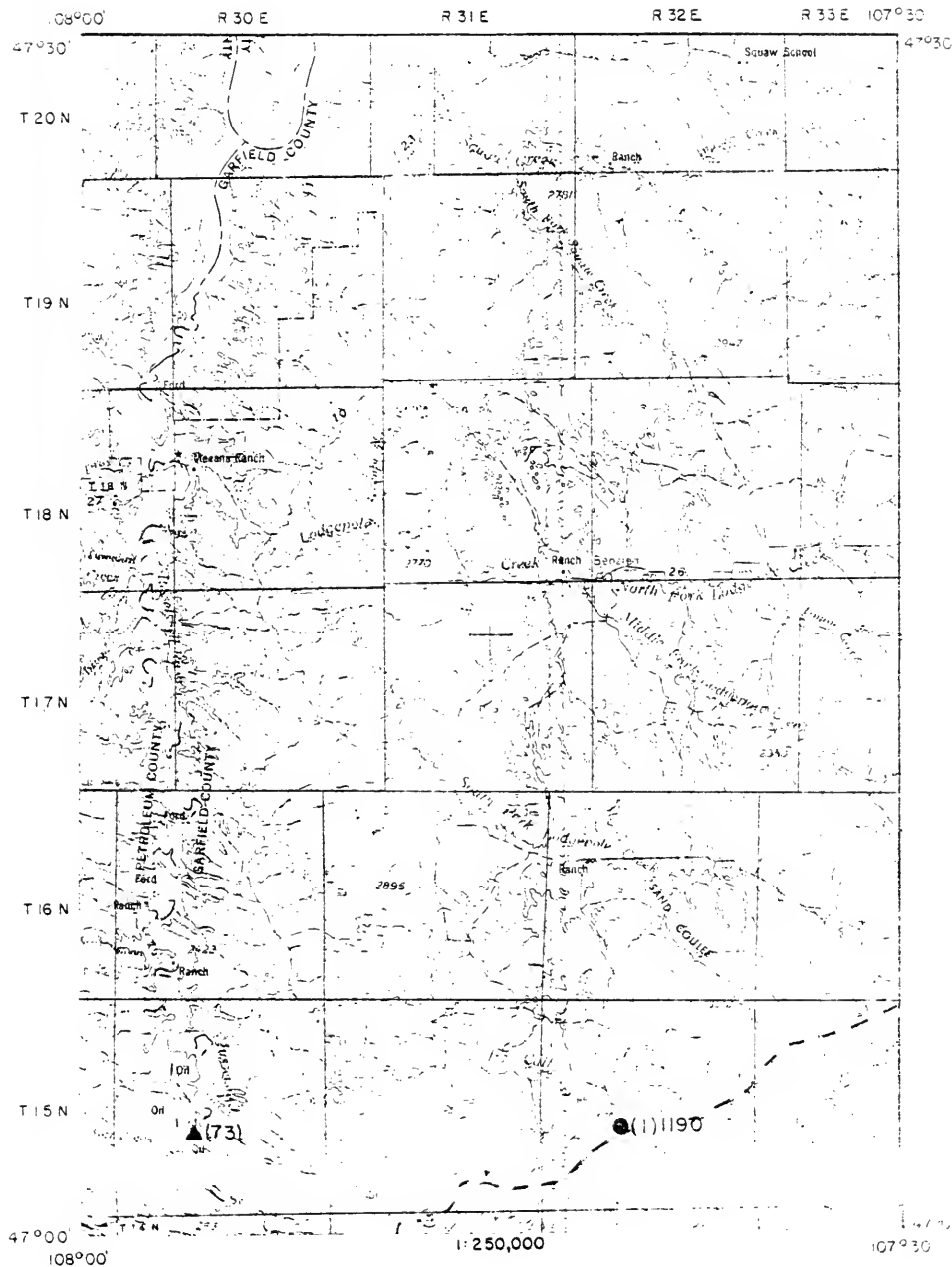
JORDAN 4



CONTOUR INTERVAL 100 FT

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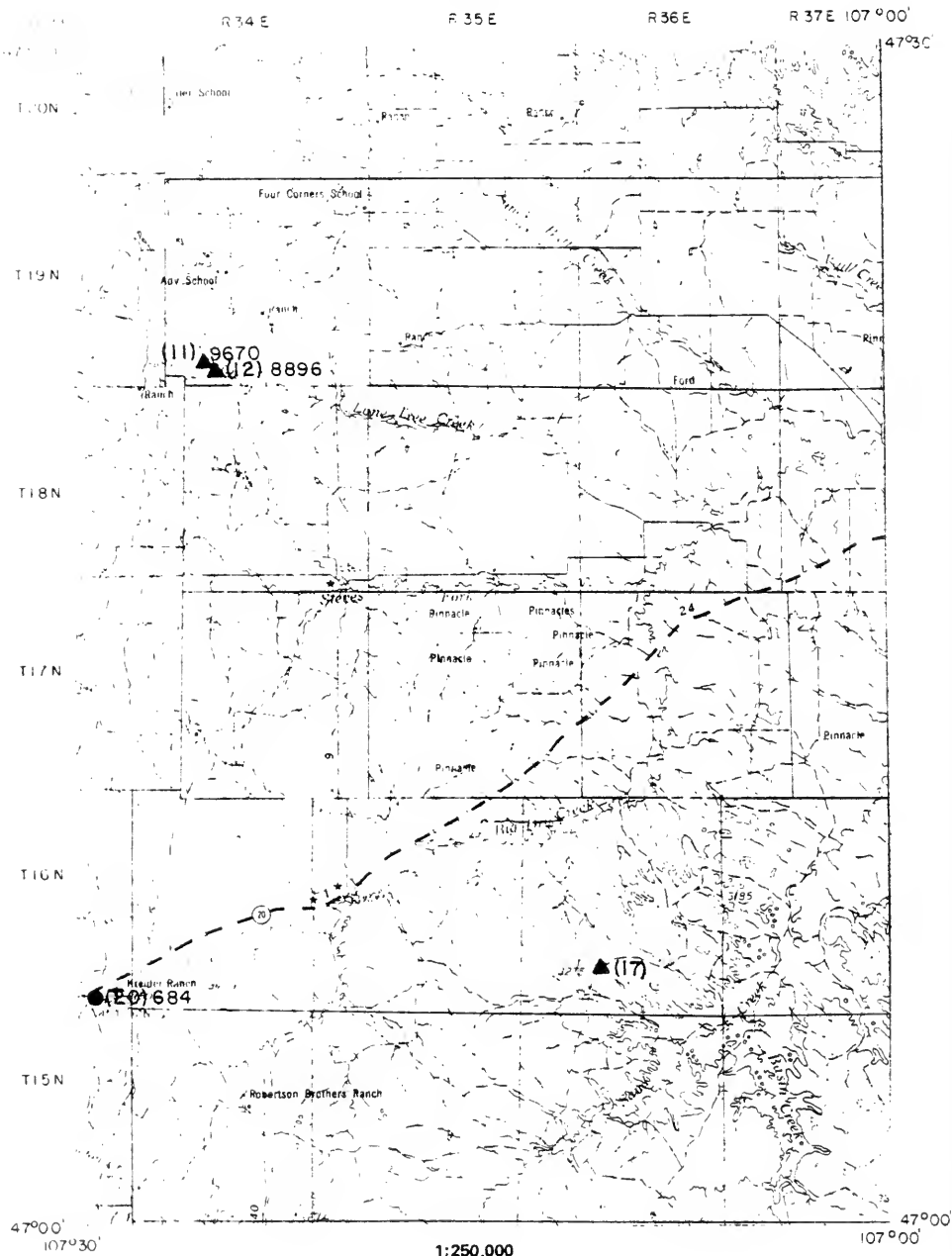
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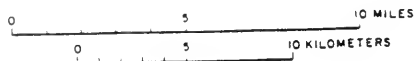
CONTOUR INTERVAL 100 FT

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JORDAN 6



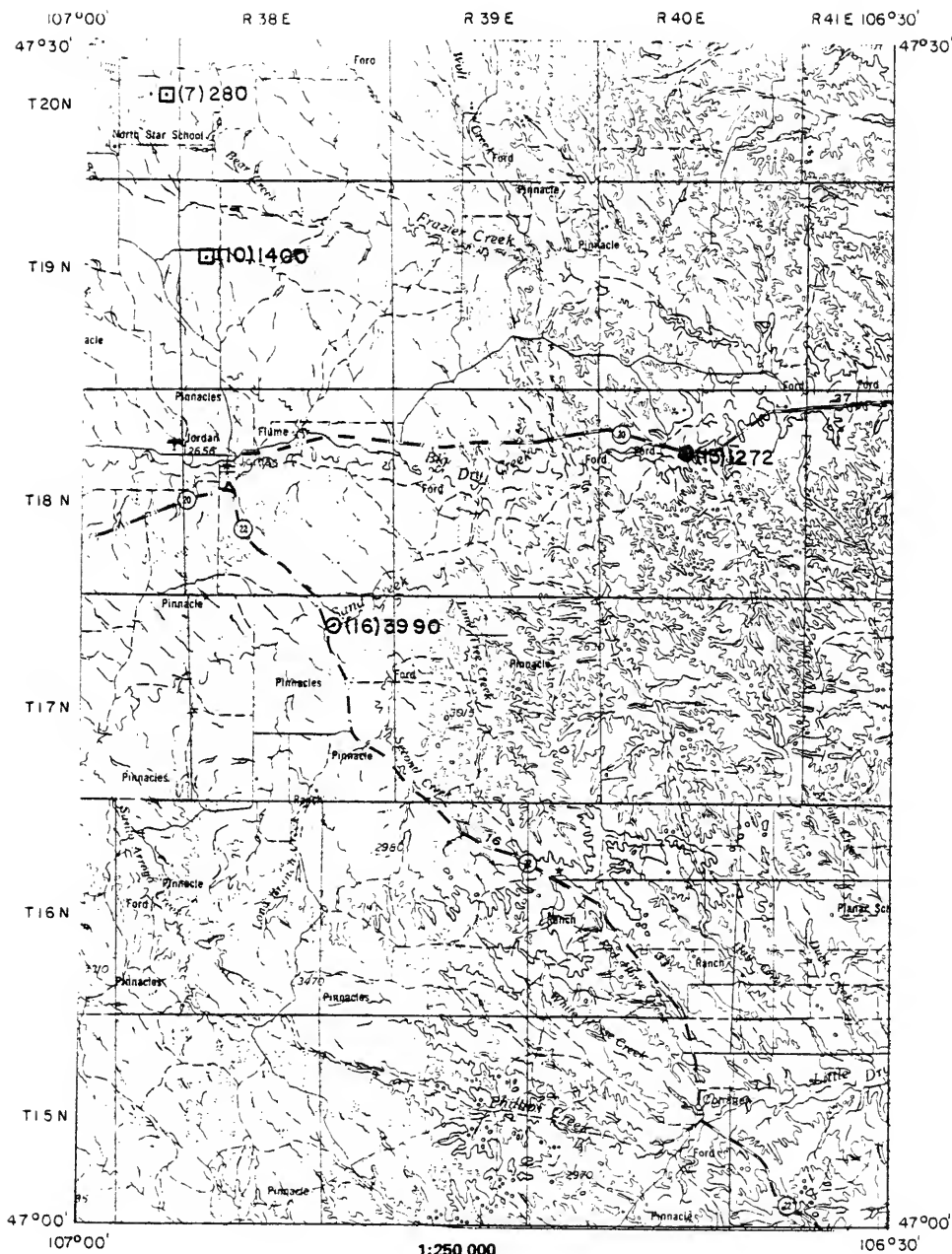
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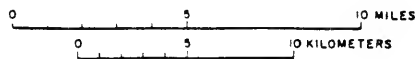
CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

JORDAN 7



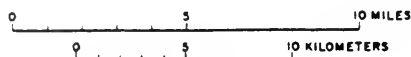
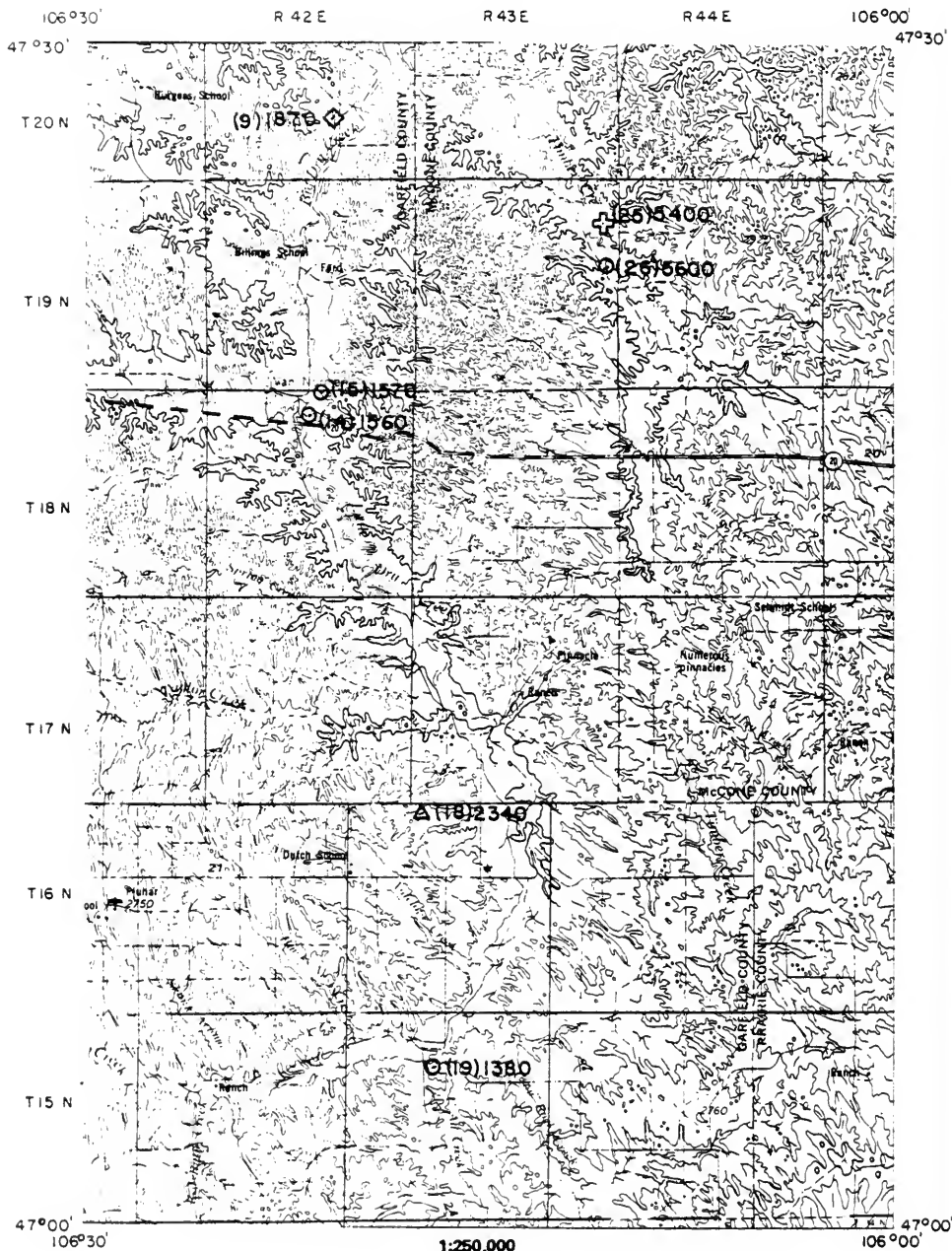
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CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

JORDAN 8



CONTOUR INTERVAL 100 FT



# JORDAN 1° x 2° Sheet

## Specific Conductivity Inventory Sheet

| Map ref. no. | Field number | County   | Location       | Collection date    | Flow or yield<br>E = estimated<br>M = measured | Site description                                       | Specific conductivity at 25 °C | Field temp. °C | Lab analysis | Altitude [ft.] | Static water level depth [ft.] | Aquifer code | Owner's name |
|--------------|--------------|----------|----------------|--------------------|--|--|--------------------------------|----------------|--------------|----------------|--------------------------------|--------------|--------------|
| 1            | WOB17        | Garfield | 15N 32E 21 CB  | 03 17 76 Creek     | 0.8 cfs (M)                                    | Calf Creek near Sand Springs                           | 1190                           | 3.2            | yes          |                |                                |              |              |
| 2            | WOB18        | Garfield | 21N 42E 07 CD  | 09 01 75 Reservoir |  | Rangeland  | 480                            | no             | no           |                |                                |              |              |
| 3            | WOB6         | Garfield | 21N 41E 32 C   | 09 01 75 Reservoir |  | Rangeland  | 330                            | no             | no           |                |                                |              |              |
| 4            | WOB11        | Garfield | 21N 38E 06     | 09 01 75 Reservoir |  | F. Peck Reservoir at Hell Creek State Park             | 510                            | no             | no           |                |                                |              |              |
| 5            | WOB10        | Garfield | 21N 37E 14 DB  | 09 01 75 Creek     | 60 gpm (E)                                     | Hell Creek   | 6100                           | no             | no           |                |                                |              |              |
| 6            | WOB9         | Garfield | 21N 37E 26     | 09 01 75 Coulee    |  | Coulee at the edge of the Missouri breaks              | 3200                           | no             | no           |                |                                |              |              |
| 7            | WOB8         | Garfield | 20N 37E 24     | 09 01 75 Reservoir |  | Reservoir along Bear Creek, dryland farming area       | 280                            | no             | no           |                |                                |              |              |
| 8            | WOB4         | Garfield | 20N 42E 10 D   | 09 01 75 Creek     |  | Flat Creek   | 1660                           | no             | no           |                |                                |              |              |
| 9            | WOB3         | Garfield | 20N 42E 27 A   | 09 01 75 Spring    |  | Stock tank in river valley, dryland farming area       | 1870                           | no             | no           |                |                                |              |              |
| 10           | WOB7         | Garfield | 19N 38E 18     | 09 01 75 Reservoir |  | Rangeland, alkali along reservoir and below            | 1400                           | no             | no           |                |                                |              |              |
| 11           | 68W0011      | Garfield | 19N 34E 32 BDC | 04 25 69 Well      |  |  | 9670                           | yes            | yes          |                |                                |              |              |
| 12           | 68W0010      | Garfield | 19N 34E 32 BDC | 04 25 69 Well      |  |  | 8896                           | yes            | yes          |                |                                |              |              |
| 13           | WOB16        | Garfield | 18N 35E 09 DB  | 03 17 76 Creek     | 1.6 cfs (M)                                    | Big Dry Creek at highway near Jordan, Algal sample     | 1272                           | yes            | yes          |                |                                |              |              |
| 14           | WOB1         | Garfield | 18N 35E 09 DB  | 03 17 76 Creek     | 2 cfs (E)                                      | Little Dry Creek                                       | 1560                           | no             | no           |                |                                |              |              |
| 15           | WOB2         | Garfield | 18N 35E 03     | 08 01 76 Creek     | 2 cfs (E)                                      | Big Dry Creek  | 1570                           | no             | no           |                |                                |              |              |
| 16           | WOB19        | Garfield | 17N 38E 02 CCC | 10 07 76 Creek     | 0.6 cfs (E)                                    | Sand Creek at highway                                  | 3980                           | no             | yes          | 3110           |                                | 331CHLS      |              |
| 17           | 53W0001      | Garfield | 16N 38E 28 CA  | 09 14 53 Well      |  | In a coulee below dryland farming area                 | 2340                           | no             | no           |                |                                |              |              |
| 18           | WOB15        | Garfield | 16N 43E 04 B   | 09 02 75 Well      |  | U All Creek  | 1540                           | no             | no           |                |                                |              |              |
| 19           | WOB14        | Garfield | 16N 43E 09     | 09 02 75 Creek     |  | South Fork Lodge Creek at Sand Springs                 | 684                            | yes            | yes          |                |                                |              |              |
| 20           | WOB21        | Garfield | 16N 33E 02 AA  | 03 17 76 Creek     | 0.3 cfs (E)                                    |  |                                |                |              |                |                                |              |              |
| 21           | MBMG74       | Valley   | 26N 36E 27     | 07 24 76 Pond      |  | In back of levee below Three Forks Detention Reservoir | 1870                           | 20             | no           | 2400           |                                |              |              |
| 22           | WOB37        | McCona   | 23N 33E 24 BC  | 09 01 76 Reservoir |  | About 3 acres in size                                  | 1140                           |                | yes          | 2540           |                                | 331CHLS      |              |
| 23           | 68W0027      | McCona   | 22N 44E 18 BB  | 01 11 66 Well      |  | 85 miles NE of Jordan                                  | 10110                          |                | yes          |                |                                |              |              |
| 24           | WOB38        | McCona   | 21N 33E 36     | 09 01 76 Creek     | 25 gpm (E)                                     | Nelson Creek, rangeland                                | 4500                           | no             | no           |                |                                |              |              |
| 25           | WOB39        | McCona   | 19N 33E 12 BA  | 09 01 75 Sep       | no flow  | Coulee, rangeland                                      | 5900                           | no             | no           |                |                                |              |              |
| 26           | WOB40        | McCona   | 18N 43E 13     | 09 01 75 Creek     | 60 gpm (E)                                     | Timber Creek, rangeland                                | 6600                           | no             | no           |                |                                |              |              |
| 27           | MBMG148      | Phillips | 26N 32E 26 AC  | 07 23 76 Well      | 1 gpm (E)                                      | Domestic use, hard water, 1000 feet SW of house        | 1210                           | 13.1           | no           | 2440           | 36                             | 40           | Oilwood      |
| 28           | MBMG147      | Phillips | 26N 32E 26 AC  | 07 23 76 Well      | 10 gpm   | Stock use, high in sodium                              | 4360                           | 11.8           | no           | 2350           | 15                             | 20           | Oilwood      |
| 29A          | MBMG146      | Phillips | 26N 32E 21 DD  | 07 23 76 Well      | 5 gpm (E)                                      | Stock use, well located 200 feet NW of section corner  | 2770                           | 14.8           | no           | 2380           | 37                             | 671          | Oilwood      |
| 29B          | MBMG149      | Phillips | 26N 32E 04 B8B | 07 23 76 Well      | 10 gpm   | Stock use, well located NE of house                    |                                |                |              |                |                                |              |              |

JORDAN

**JORDAN 1" x 2" Sheet (Con't.)**  
**Specific Conductivity Inventory Sheet (Con't.)**

| Map<br>ref. | Field<br>no. | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or Yield<br>E = estimated<br>M = measured | Site description  | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name |
|-------------|--------------|----------|---------------------------|---------------------------------|--|---|--------------------------------------|----------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|--------------|
| 30          | MBMG150      | Phillips | 25N 30E 31 CD             | 07 23 78 Well                   | 20 gpm   | Domestic and stock use                                    | 2600                                 | 17                   | no              | 2600            | 110                             | 830                  | 211 JDRV        | Bunt, Alfred |
| 31          | MBMG183      | Phillips | 24N 32E 34 CDB            | 07 24 78 Well                   | 10 gpm   | Water is soft, bad for drinking                           | 2650                                 | 17.3                 | no              | 2650            | 200                             | 1100                 | 211 JDRV        | Burkhard     |
| 32          | MBMG182      | Phillips | 24N 31E 28 CDB            | 07 24 78 Well                   | 10 gpm   | Domestic use, 1000 ft. SW of house                        | 2930                                 | 17.3                 | no              | 2930            | 6                               | 10                   |                 | Koss         |
| 33          | MBMG184      | Phillips | 24N 31E 28 CDB            | 07 24 78 Well                   | 10 gpm   | Domestic use, 1000 ft. SW of house                        | 2970                                 | 14                   | no              | 2350            | Flowing                         | 860                  | 211 JDRV        | Koss         |
| 34          | MBMG181      | Phillips | 24N 31E 19                | 07 24 78 Well                   | 2 gpm  | Stock use, located 2.5 miles SW of house                  | 3030                                 | 13.2                 | no              | 2450            | Flowing                         | 820                  | 211 JDRV        | Koss         |
| 35          | MBMG83       | Valley   | 22N 35E 04                | 07 24 78 Well                   |  | Irrigation and stock use                                  | 1180                                 | 13                   | no              | 2900            | 80                              | 300                  |                 |              |
| 36          | MBMG99       | Valley   | 26N 38E 31                | 07 24 78 Reservoir              |  | Salts nearby  | 1740                                 | 21                   | no              | 2200            | flowing                         | 820                  | 211 JDRV        | Wedrick      |
| 37          | MBMG184      | Phillips | 23N 31E 07 AD             | 07 24 78 Well                   | 10 gpm   | Domestic use, high in sodium content                      | 2830                                 | 18                   | no              | 2320            | flowing                         | 800                  | 211 JDRV        | Wedrick      |
| 38          | MBMG185      | Phillips | 23N 31E 19                | 07 24 78 Well                   | 8 gpm  | Domestic use, high in sodium content                      |                                      |                      | no              |                 |                                 |                      |                 |              |
| 39          | MBMG186      | Phillips | 23N 31E 32                | 07 24 78 Creek                  |  | At entrance to U. L. Bend Wildlife Refuge                 | 640                                  | 22                   | no              |                 |                                 |                      |                 |              |
| 40          | MBMG187      | Phillips | 23N 31E 07                | 07 24 78 Creek                  |  | At bridge   | 1140                                 | 26.2                 | no              |                 |                                 |                      |                 |              |
| 41          | MBMG179      | Phillips | 21N 28E 02                | 07 24 78 Creek                  |  | Small creek in prairie dog town                           | 300                                  | 27.5                 | no              | 2250            |                                 |                      |                 |              |
| 42          | MBMG101      | Valley   | 25N 38E 12                | 07 26 78 Reservoir              |  | Reservoir is nearly dry, much alkali on its banks         |                                      | no                   | no              |                 |                                 |                      |                 |              |
| 43          | MBMG102      | Valley   | 25N 38E 11                | 07 26 78 Reservoir              |  | Reservoir is drained, alkali below dam                    |                                      | no                   | no              |                 |                                 |                      |                 |              |
| 44          | MBMG103      | Valley   | 25N 38E 10                | 07 26 78 Creek                  |  | Used as a stock reservoir                                 |                                      | no                   | no              |                 |                                 |                      |                 |              |
| 45          | MBMG76       | Valley   | 25N 38E 05 BBD            | 07 27 78 Creek                  | 2 gpm (E)                                      | Drains into Triple Crossing Reservoir, algal sample taken | 9910                                 | 23                   | no              | 2450            |                                 |                      |                 |              |
| 46          | MBMG75       | Valley   | 26N 38E 28                | 07 27 78 Reservoir              |  | Triple Crossing Reservoir, some alkali below dam          | 1780                                 | 20                   | no              | 2500            |                                 |                      |                 |              |
| 47          | MBMG77       | Valley   | 25N 38E 06                | 07 27 78 Reservoir              |  | Reservoir formed by road                                  | 1800                                 | 21                   | no              | 2480            |                                 |                      |                 |              |
| 48          | MBMG85       | Valley   | 25N 37E 01 CCB            | 07 27 78 Reservoir              |  | Reservoir on Lone Tree Creek                              | 1890                                 | 20                   | no              | 2350            |                                 |                      |                 |              |
| 49          | MBMG84       | Valley   | 25N 37E 33 CAD            | 07 27 78 Reservoir              |  | Crested Reservoir, some alkali                            | 1110                                 | 20                   | no              | 2350            |                                 |                      |                 |              |
| 50          | MBMG86       | Valley   | 24N 34E 05                | 07 27 78 Well                   |  | Stock use, drinking water is hauled in                    | 5650                                 | 18                   | no              | 2500            |                                 | 800                  | 211 JDRV        |              |
| 51          | MBMG81       | Valley   | 25N 38E 09 DBB            | 07 27 78 Reservoir              |  | Fish Reservoir, clear water, much moist, salts            | 3470                                 | 24                   | no              | 2600            |                                 |                      |                 |              |
| 52          | MBMG78       | Valley   | 25N 38E 08                | 07 27 80 Pond                   |  | Seep area below reservoir, white salt crust               | 7070                                 | 21                   | no              | 2480            |                                 |                      |                 |              |
| 53          | MBMG80       | Valley   | 25N 38E 06                | 07 27 78 Creek                  |  | Salt forms a thick white crust                            | 3410                                 | 19                   | no              | 2480            |                                 |                      |                 |              |
| 54          | MBMG79       | Valley   | 25N 38E 06                | 07 27 78 Creek                  |  | Below pond  | 5680                                 | 19                   | no              | 2480            |                                 |                      |                 |              |
| 55          | MBMG82       | Valley   | 25N 38E 09                | 07 27 78 Pond                   |  | Drain pool below Fish Reservoir                           | 3620                                 | 22                   | no              | 2640            |                                 |                      |                 |              |
| 56          | MBMG83       | Valley   | 25N 38E 28 CCA            | 07 27 78 Spring                 |  | Domestic use except for drinking                          | 1070                                 | 12                   | no              | 2650            |                                 |                      |                 |              |
| 57          | MBMG107      | Valley   | 26N 40E 18                | 07 26 78 Reservoir              |  | Reservoir contains much moist                             | 210                                  | 25                   | no              | 2400            |                                 |                      |                 |              |
| 58          | MBMG104      | Valley   | 24N 38E 14                | 07 26 78 Creek                  |  | Deep pool in bottom of dry creek, algal sample taken      | 12890                                | 23.5                 | no              | 2400            |                                 |                      |                 | Stibley      |
| 59          | MBMG105      | Valley   | 25N 38E 17                | 07 27 78 Creek                  |  |   | 1080                                 | 21                   | no              | 2750            |                                 |                      |                 |              |

# JORDAN 1° x 2° Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no | Field<br>number | County   | Location<br>T R Sec. Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E = estimated<br>M = measured | Site description                | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|------------------|-----------------|----------|----------------------------|---------------------------------|-----------|--|---------------------------------|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
| 60               | MBMG106         | Valley   | 26N 36E 18 D               | 07 27 76                        | Reservoir |  |                                 | 1130                                 | 28                   | no              | 2400              |                                   |                        |                 |              |
| 61               | MBMG100         | Valley   | 26N 36E 27                 | 07 26 76                        | Reservoir |  | Stock use, muddy                | 200                                  | 24                   | no              | 2300              |                                   |                        |                 | Munger, A    |
| 62               | MBMG109B        | Valley   | 24N 36E 19                 | 07 26 76                        | Spring    |  | Domestic use                    | 160                                  | 10                   | no              | 2500              |                                   |                        |                 | Rowick, J.   |
| 63               | MBMG112         | Valley   | 27N 42E 22                 | 07 26 76                        | Well      |  | Stock use                       | 4830                                 | 12                   | no              | 2060              |                                   | 30                     |                 |              |
| 64               | MBMG59          | Valley   | 24N 36E 23                 | 07 26 76                        | Reservoir |  |                                 | 260                                  | 26                   | no              | 2500              |                                   |                        |                 |              |
| 65               | MBMG88          | Valley   | 24N 37E 12                 | 07 26 76                        | Pond      |  |                                 | 25400                                | 30                   | no              | 2400              |                                   |                        |                 |              |
| 66               | MBMG31          | Valley   | 24N 36E 30                 | 07 26 76                        | Creek     |  |                                 | 8670                                 | 24                   | no              | 2500              |                                   |                        |                 |              |
| 67               | MBMG50          | Valley   | 24N 36E 21                 | 07 26 76                        | Pond      |  |                                 | 180                                  | 30                   | no              | 2600              |                                   |                        |                 | Handley      |
| 68               | MBMG32          | Valley   | 22N 35E 04 DCCD            | 07 26 76                        | Spring    |  |                                 | 1447                                 | 9                    | yes             | 2900              |                                   |                        |                 | Burke, D.    |
| 69               | MBMG37          | Valley   | 24N 37E 06 BCAA            | 07 26 76                        | Pond      |  |                                 | 6720                                 | 27                   | no              | 2350              |                                   |                        |                 |              |
| 70               | MBMG94          | Valley   | 23N 35E 10                 | 12 19 76                        | Spring    |  |                                 | 1892                                 | 7                    | yes             | 2850              |                                   |                        |                 | Burke, D     |
| 71               | MBMG116         | Phillips | 26N 32E 26                 | 07 26 76                        | Creek     |  | Beaver Creek, salt present      | 2800                                 | 31                   | no              | 2480              |                                   |                        | 33ICRLS         |              |
| 72               | MBMG113         | Valley   | 25N 36E 25                 | 07 26 76                        | Well      |  |                                 | 66000                                |                      | yes             | 2400              |                                   |                        | 217LKDT         |              |
| 73               | 20M002          | Valley   | 16N 30E 21 CA              | 01 06 26                        | Well      |  | Muddy dam - Cat Creek oil field |                                      |                      | yes             | 2427              |                                   |                        |                 |              |

## JORDAN

## Chemical Analyses

| Map<br>ref.<br>no. | T   | Location<br>R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|-----|-------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 1                  | 15N | 32E 21 C8               | 03 17 76                        | Creek  | 35.7            | 11.2                   | 220            | 4.4                   |              |                        |                               | 218                                     |                                      | 3.5              | 415                           |
| 11                 | 19N | 34E 32 BDC              | 04 25 69                        | Well   | 500             | 120                    | 1800*          |                       |              |                        |                               | 560                                     |                                      | 2000             | 1800                          |
| 12                 | 19N | 34E 32 BDC              | 04 29 69                        | Well   | 390             | 69                     | 1300*          |                       |              |                        |                               | 450                                     |                                      | 1600             | 1800                          |
| 13                 | 18N | 40E 09 DB               | 03 17 76                        | Creek  | 31.5            | 12.4                   | 225            | 4.5                   |              |                        |                               | 275                                     |                                      | 6.5              | 370                           |
| 17                 | 18N | 36E 28 CA               | 08 14 53                        | Well   | 480             | 90                     | 1600*          |                       |              |                        |                               | 523                                     |                                      | 1600             | 2300                          |
| 20                 | 15N | 33E 02AA                | 03 17 76                        | Creek  | 43.4            | 23.4                   | 87             | 8.6                   |              |                        |                               | 257                                     |                                      | 13               | 125                           |
| 23                 | 22N | 44E 18 88               | 01 11 66                        | Well   | 370             | 76                     | 2300*          |                       |              |                        |                               | 295                                     | 37                                   | 1500             | 3700                          |
| 68                 | 22N | 35E 04 DCCD             | 07 26 76                        | Spring | 31.9            | 24.8                   | 300            | 1.9                   | .10          | .92                    | 11.4                          | 871                                     |                                      | 14               | 86.1                          |
| 70                 | 23N | 35E 10 BCAA             | 12 18 76                        | Spring | 15              | 6.6                    | 445            | 2.0                   | .23          | .03                    | 11.4                          | 853                                     |                                      | 11.5             | 300                           |
| 72                 | 23N | 41E 04 DC               | 07 30 71                        | Well   | 44              | 5.9                    | 1900*          |                       |              |                        |                               | 490                                     |                                      | 580              | 2900                          |
| 73                 | 15N | 30E 21 CA               | 01 06 28                        | Well   |                 |                        | 850*           |                       |              |                        |                               | 938                                     |                                      | 750              | 13                            |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## 1° x 2° Sheet

## of Selected Waters

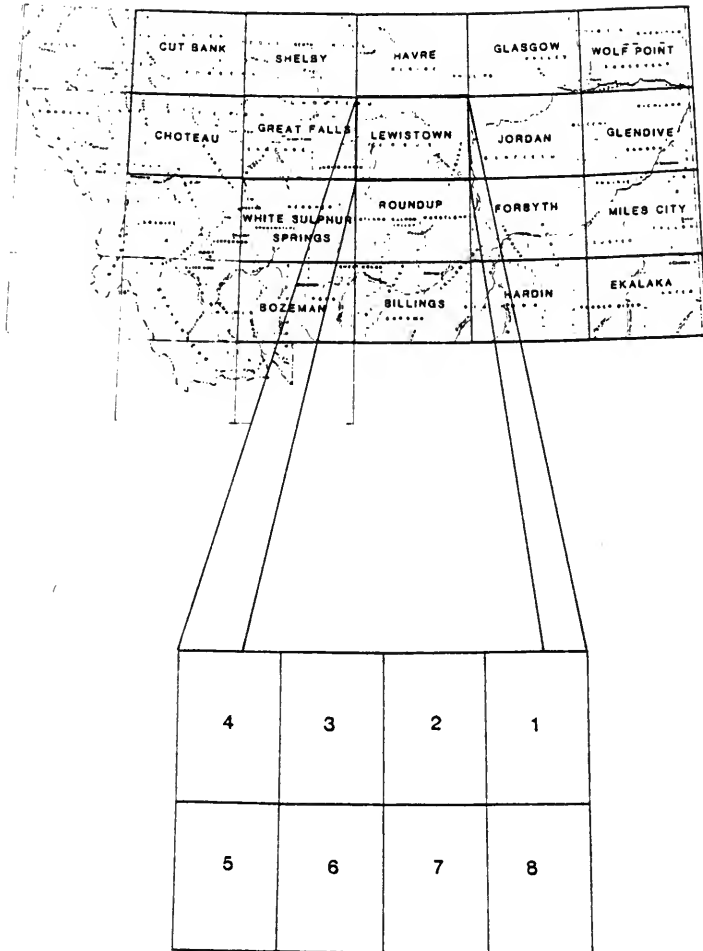
| Map<br>ref.<br>no. | Nitrate<br>(M) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>°C | Lab<br>specific<br>conductance<br>( $\mu$ mho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as $\text{CaCO}_3$ | Total<br>alkalinity<br>as $\text{CaCO}_3$ | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 1                  | .07            |                 | 7.9       | 3.2                  | 1190  |                                | 135                                     | 111                                       | 8.2                           | WQB                  |                        |                 | no                            | 76W0492       |
| 11                 |                |                 | 7.1       |                      |   |                                | 1740                                    | 459                                       |                               | Unknown              |                        | 331CRLS         | no                            | 69M0011       |
| 12                 |                |                 | 7.3       |                      |   |                                | 1260                                    | 369                                       |                               | Unknown              |                        | 337MSNC         | no                            | 69M0010       |
| 13                 | .23            |                 | 8.2       | 2.5                  | 1272  |                                | 130                                     | 225                                       | 8.6                           | WQB                  |                        |                 | no                            | 76W0490       |
| 17                 |                |                 |           |                      |   |                                | 1570                                    | 429                                       |                               | Unknown              |                        | 331CRLS         | no                            | 53M0001       |
| 20                 | .06            |                 | 7.63      | 2.3                  | 684   |                                | 205                                     | 211                                       | 2.0                           | WQB                  |                        |                 | no                            | 76W0491       |
| 23                 |                |                 | 8.8       |                      |   |                                | 1240                                    | 304                                       |                               | Unknown              |                        | 331CRLS         | no                            | 66M0027       |
| 68                 | .095           | .5              | 7.74      | 9                    | 1447  | 901                            | 182                                     | 714                                       | 9.7                           | MBMG                 |                        | 211HLCK         | yes                           | 76M1504       |
| 70                 | .357           | .3              | 8.19      | 7                    | 1882  | 1213                           | 65                                      | 700                                       | 24.1                          | MBMG                 |                        | 211FXHL         | yes                           | 76M1505       |
| 72                 |                |                 | 7.8       |                      | 56000   |                                | 134                                     | 402                                       |                               | Unknown              |                        | 311CRLS         | no                            | 71M5002       |
| 73                 |                |                 |           |                      |   |                                |   | 789                                       |                               | Unknown              |                        | 217LKOT         | no                            | 26M0002       |

## JORDAN 1° x 2° Sheet

## Trace Elements Analysis Sheet

| Map<br>ref.<br>no. | Location<br>T N Sec Tract | Alu-<br>minum<br>mg/g<br>(mg/l) | Anti-<br>mony<br>mg/g<br>(mg/l) | Ar-<br>senic<br>µg/g<br>(µg/l) | Beryl-<br>lum<br>µg/g<br>(µg/l) | Boron<br>mg/g<br>(mg/l) | Cad-<br>mium<br>mg/g<br>(mg/l) | Chro-<br>mium<br>mg/g<br>(mg/l) | Cop-<br>per<br>mg/g<br>(mg/l) | Lead<br>mg/g<br>(mg/l) | Lith-<br>ium<br>mg/g<br>(mg/l) | Mer-<br>cury<br>mg/g<br>(mg/l) | Nickel<br>mg/g<br>(mg/l) | Phosphate<br>(Total<br>dissolved)<br>(µg/l) | Selenium<br>mg/g<br>(mg/l) | Silver<br>mg/g<br>(mg/l) | Stro-<br>nium<br>mg/g<br>(mg/l) | Tin<br>mg/g<br>(mg/l) | Zinc<br>mg/g<br>(mg/l) | Lab<br>number |
|--------------------|---------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------------|-------------------------|--------------------------------|---------------------------------|-------------------------------|------------------------|--------------------------------|--------------------------------|--------------------------|---|----------------------------|--------------------------|---------------------------------|-----------------------|------------------------|---------------|
| 68                 | 23N 35E 04 DCCD           | .08                             | <2                              | <2.0                           |                                 | .22                     | <.01                           | <.01                            | .01                           | <.06                   | .05                            | <.3                            | <.01                     | .016  | <2.0                       |                          | .21                             | .16                   | 1.43                   | 78M1504       |
| 70                 | 23N 35E 10 ECAA           | .06                             | <2                              | <2.0                           |                                 | .30                     | <.01                           | <.01                            | <.01                          | <.06                   | .15                            | <.3                            | .01                      | .016  | <2.0                       |                          | .20                             | .17                   | .01                    | 78M1506       |

# LOCATION BASE MAP



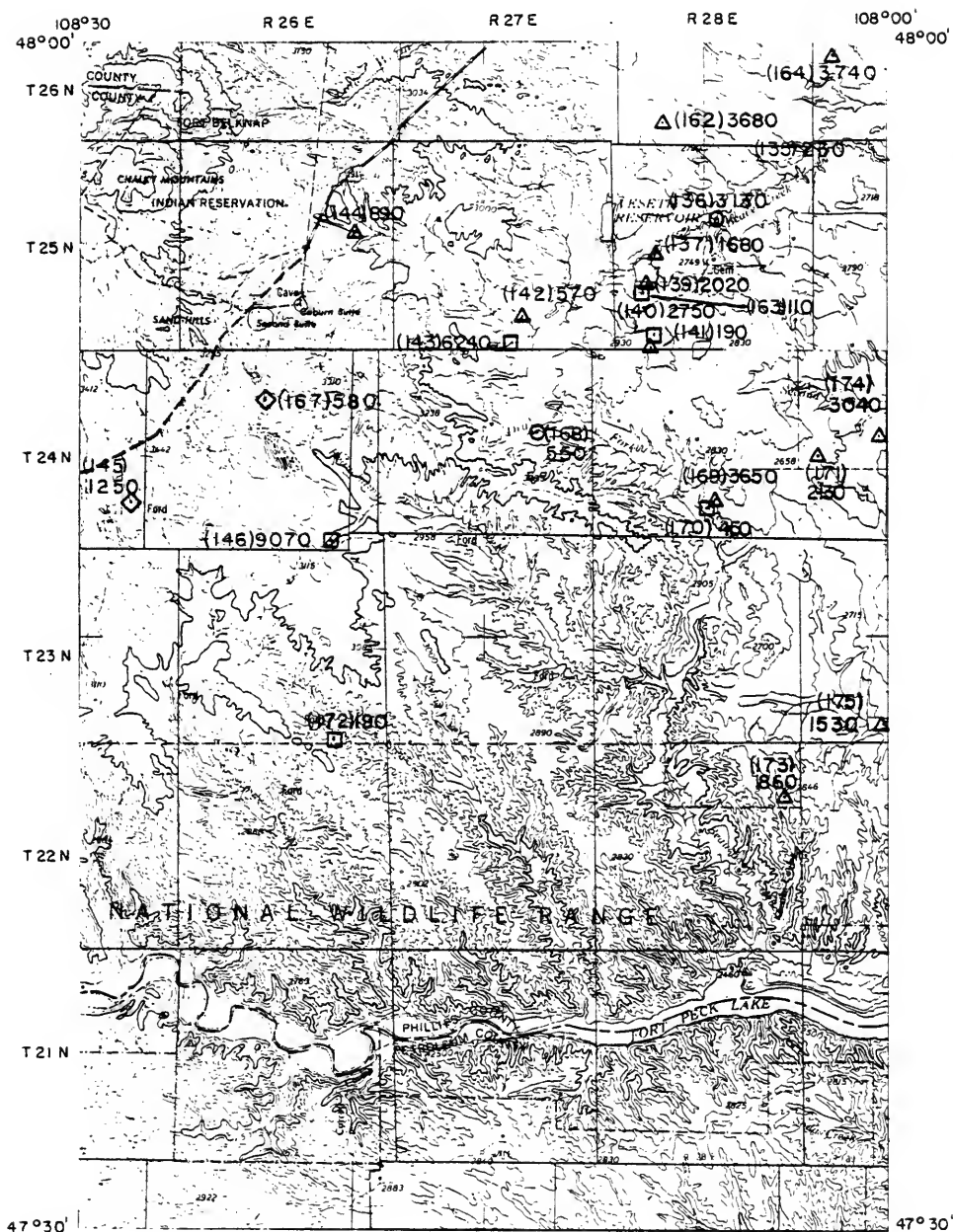
LEWISTOWN 1° x 2° SHEET





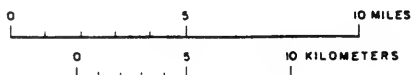
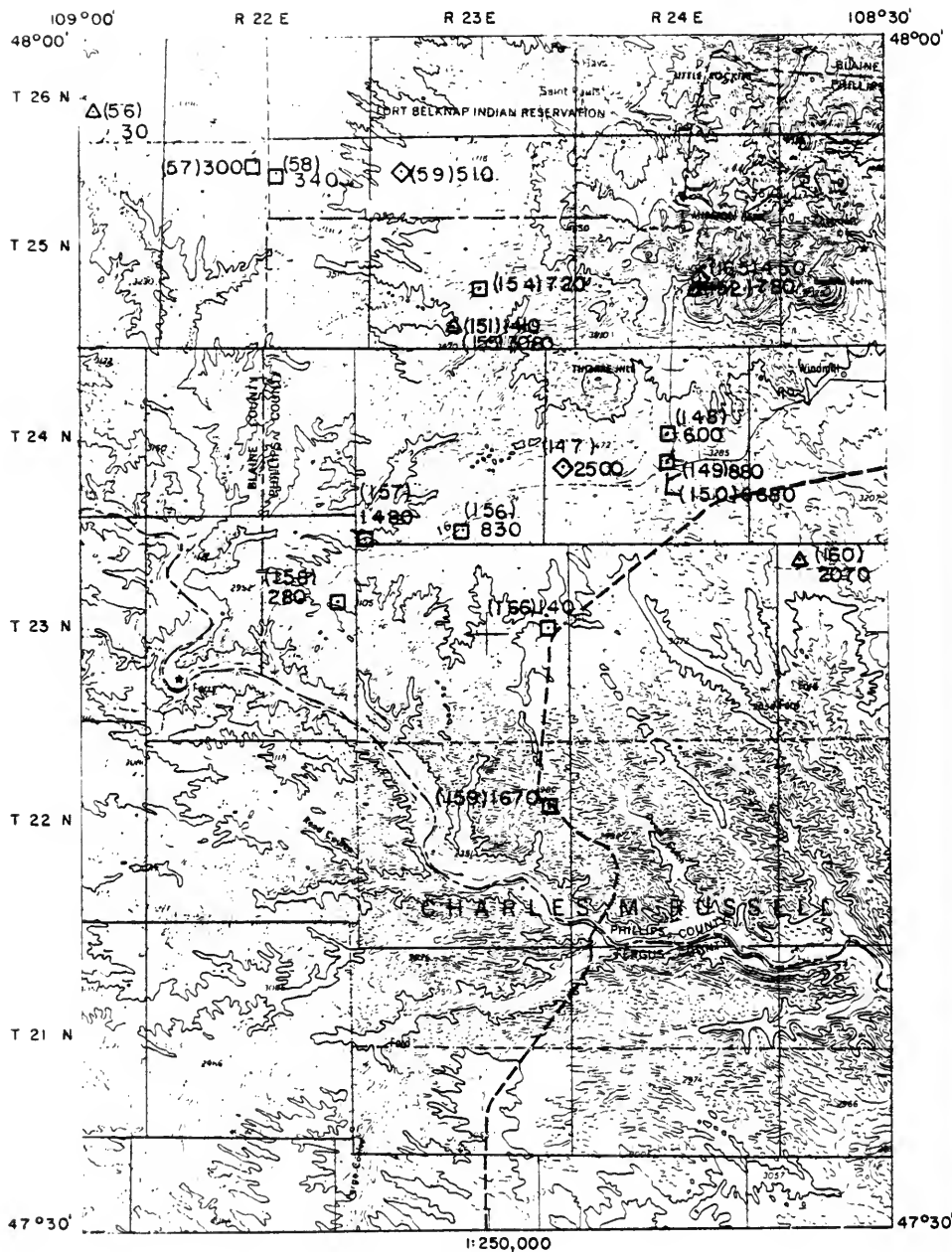
# SPECIFIC CONDUCTANCE SURVEY

LEWISTOWN 1



# SPECIFIC CONDUCTANCE SURVEY

LEWISTOWN 2



CONTOUR INTERVAL 100 FT

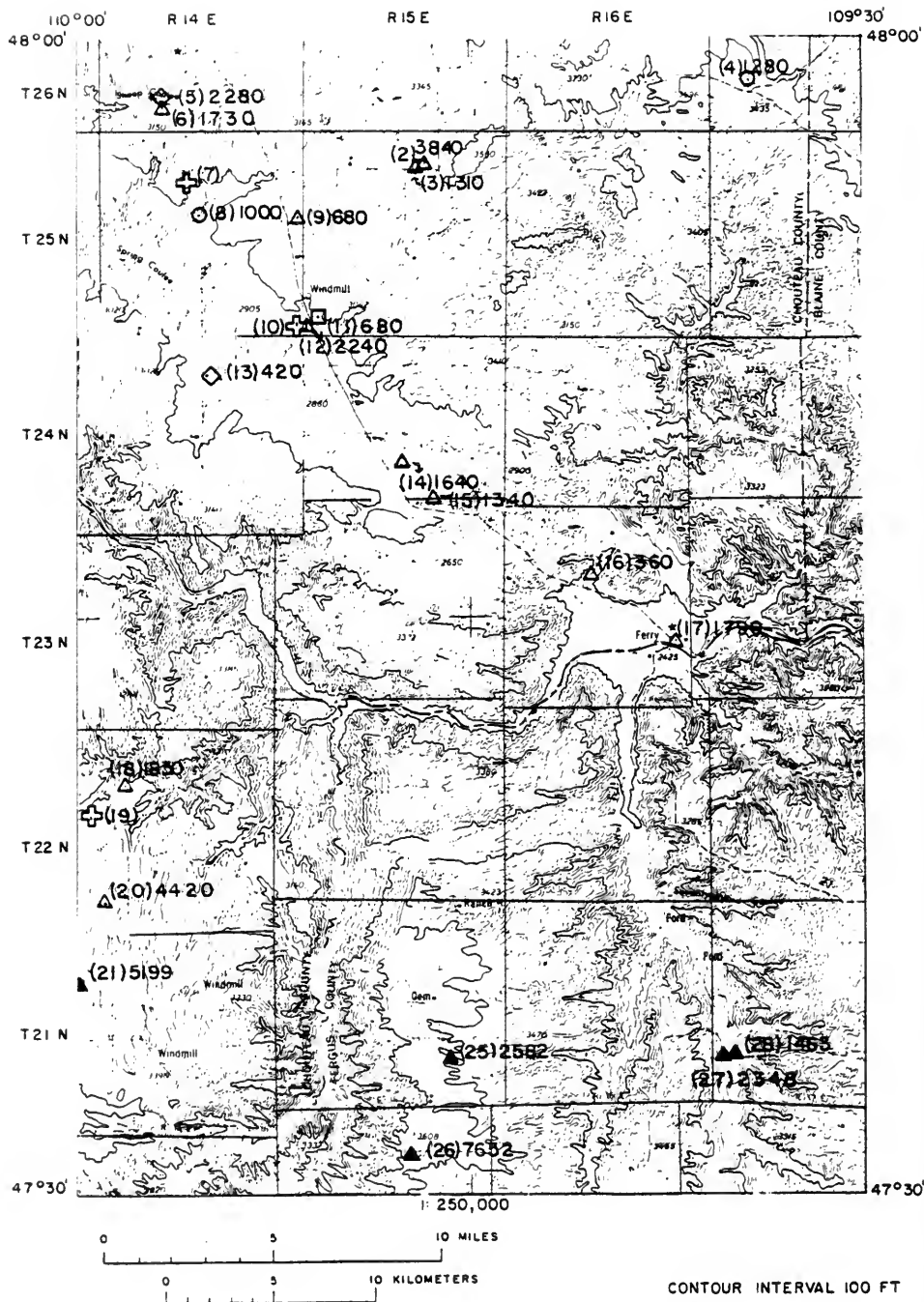
## LEWISTOWN 3

1: 250,000

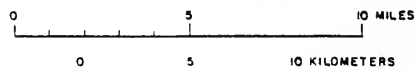


# SPECIFIC CONDUCTANCE SURVEY

LEWISTOWN 4



## LEWISTOWN 5



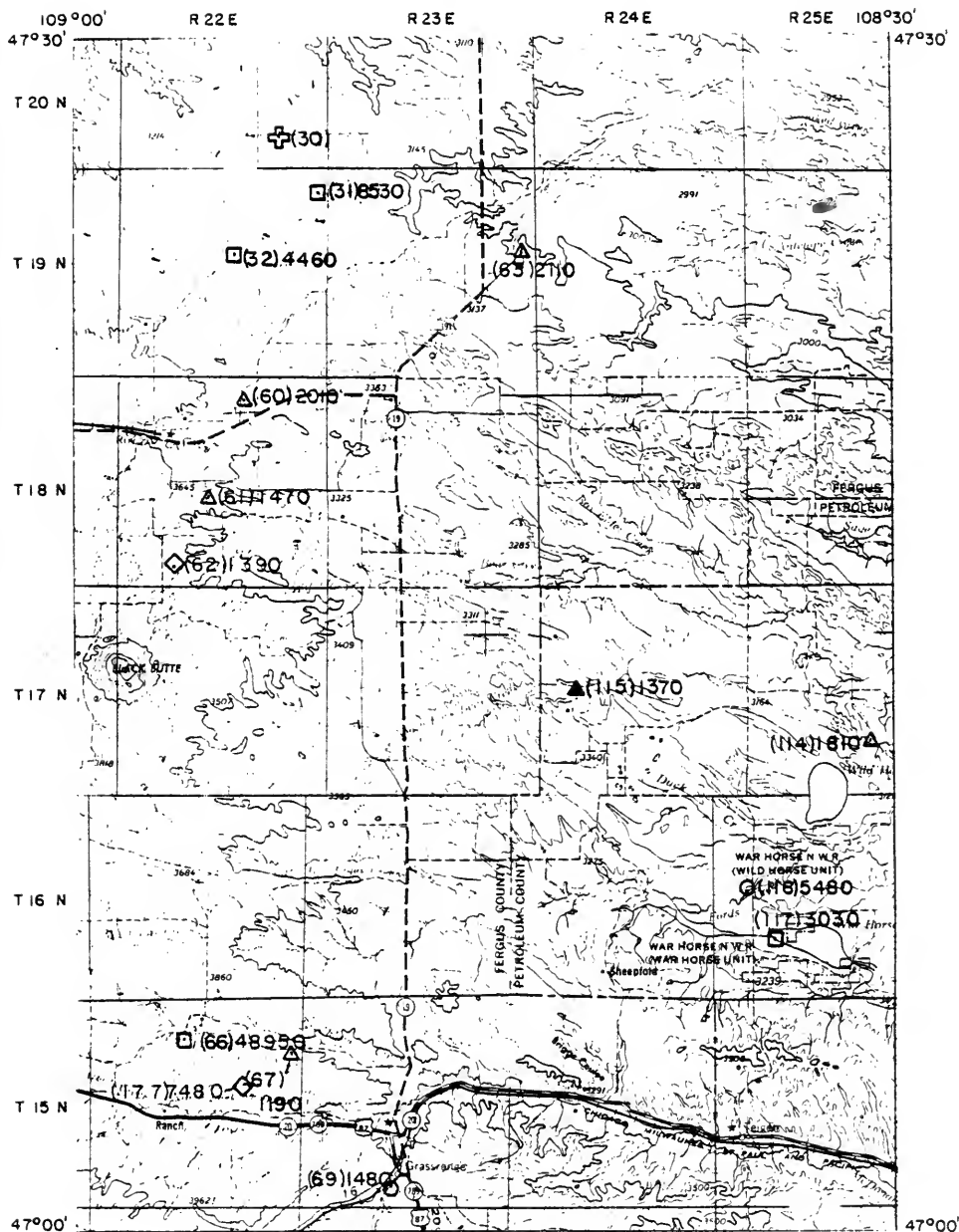
CONTOUR INTERVAL 100 FT

## LEWISTOWN 6



# SPECIFIC CONDUCTANCE SURVEY

LEWISTOWN 7



## LEWISTOWN 8





# LEWISTOWN 1° x 2° Sheet

## Specific Conductivity Inventory Sheet

| Map<br>rel.<br>no. | Field<br>number | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E=estimated<br>M=measured | Site description                                     | Specific<br>conductivity<br>at 25 °C | Field<br>temp. | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name   |
|--------------------|-----------------|----------|---------------------------|---------------------------------|-----------|--|--|--------------------------------------|----------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|----------------|
| 1                  | MBMG26          | Blaine   | 26N 06E 34 DDC            | 07 08 78                        | Creek     | 0.3 gpm                                    | Bushwacker Coulee, ripal sample taken                | 8830                                 | 22             | no              | 3320              | 38                                | 115                    |                 | Cook, Richard  |
| 2                  | MBMG74          | Chouteau | 25N 15E 03 DDB            | 08 08 78                        | Well      | 2.5 gpm                                    | Stock use  | 2840                                 | 13             | no              | 3320              |                                   |                        |                 | Cook, Richard  |
| 3                  | MBMG75          | Chouteau | 25N 15E 03 DDB            | 08 08 78                        | Well      | 5 gpm                                      | Domestic use   | 1310                                 | 13             | no              | 3320              | 32                                |                        |                 | Cook, Richard  |
| 4                  | MBMG73          | Chouteau | 26N 17E 28 BCC            | 08 10 78                        | Creek     | 6 cfs                                      | Willow trees along banks                             | 1280                                 | 18             | no              | 3400              |                                   |                        |                 | Butler, E. C.  |
| 5                  | MBMG76          | Chouteau | 26N 14E 32 AAC            | 08 08 78                        | Spring    | 0.25 cfs                                   | On Sheep Coulee                                      | 2280                                 | 8.6            | no              | 3120              |                                   |                        |                 | Butler, E. C.  |
| 6                  | MBMG77          | Chouteau | 26N 14E 32 ADB            | 08 08 78                        | Well      |  | Domestic use, water forms white deposits on fixtures | 1730                                 | 19             | no              | 3120              | 54                                | 84                     |                 | Butler, E. C.  |
| 7                  | MBMG78          | Chouteau | 25N 14E 08 ADB            | 08 08 78                        | Seep      |  | 0.5 acre in size                                     |                                      |                | no              | 3100              |                                   |                        |                 |                |
| 8                  | MBMG79          | Chouteau | 26N 14E 32 ADB            | 08 08 78                        | Well      | 1 cfs                                      | Light Creek  | 1000                                 | 20             | no              | 2900              |                                   |                        |                 | Yes            |
| 9                  | MBMG80          | Chouteau | 26N 14E 13 ADC            | 08 08 78                        | Well      |  | Domestic use, water leaves rust stains               | 680                                  | 17             | no              | 3100              | 7                                 | 35                     |                 |                |
| 10                 | MBMG81          | Chouteau | 25N 14E 36                | 08 08 78                        | Seep      |  | 0.5 acre in size                                     |                                      |                | no              |                   |                                   |                        |                 |                |
| 11                 | MBMG83          | Chouteau | 25N 15E 31 CBA            | 08 08 78                        | Reservoir |  | In a wheat field                                     | 880                                  | 19             | no              | 2950              |                                   |                        |                 | Beeler, Louis  |
| 12                 | MBMG82          | Chouteau | 25N 15E 31 CGB            | 08 08 78                        | Well      |  | Domestic use, water forms white deposits on fixtures | 2240                                 | 15             | no              | 2950              |                                   |                        |                 | Beeler, Louis  |
| 13                 | MBMG159         | Chouteau | 24N 14E 10 BGA            | 08 08 78                        | Reservoir |  | In wheat field, moss and vegetation in reservoir     | 420                                  | 20             | no              | 2850              |                                   |                        |                 | Beeler, Louis  |
| 14                 | MBMG160         | Chouteau | 24N 15E 21 DDAC           | 08 08 78                        | Well      | 20 gpm                                     | Domestic use, water is rusty, forms white deposits   | 1640                                 | 14.5           | no              | 2900              | 22                                | 28                     |                 | Ogle, Frank    |
| 15                 | MBMG167         | Chouteau | 23N 15E 03 BAAC           | 08 08 78                        | Well      |  | Domestic use, water is rusty colored                 | 1340                                 | 12             | no              | 2940              | 4                                 |                        |                 | Hoge           |
| 16                 | MBMG168         | Chouteau | 23N 15E 15 BBBC           | 08 08 78                        | Well      |  | Stock use  | 300                                  | 16             | no              | 2490              |                                   |                        |                 |                |
| 17                 | MBMG168         | Chouteau | 23N 15E 15 BBBC           | 08 08 78                        | Well      | 19 gpm                                     | Domestic use, water leaves iron deposits on fixtures | 1790                                 | 14             | no              | 2490              |                                   | 25                     |                 | Mical          |
| 18                 | MBMG174         | Chouteau | 22N 14E 08 AAAA           | 08 08 78                        | Well      |  | Domestic use   | 1830                                 | 13             | no              | 3020              |                                   |                        |                 |                |
| 19                 | MBMG175         | Chouteau | 22N 14E 18                | 08 08 78                        | Seep      |  | Approximately one acre in size                       |                                      |                | no              |                   |                                   |                        |                 |                |
| 20                 | MBMG176         | Chouteau | 22N 14E 30 B/C            | 08 08 78                        | Well      |  | Domestic use except for drinking                     | 4420                                 | 18             | no              | 3390              | 10                                | 15                     |                 | Carwright, B.  |
| 21                 | MBMG190         | Chouteau | 21N 14E 07 BDDC           | 01 16 78                        | Well      |  | Stock use, water contains alkali                     | 6199                                 | 8              | yes             | 3220              | 114                               | 120                    |                 | Dassl, Elmer   |
| 22                 | 76M1264         | Fergus   | 22N 20E 02                | 06 23 78                        | Well      |  | Domestic use, water contains natural gas             | 4888                                 | 12             | yes             | 3080              | 360                               | 211.DRV                |                 | Ford, Tom      |
| 23                 | 76M1265         | Fergus   | 22N 20E 22 B              | 06 23 78                        | Well      |  | Domestic use, located 18 miles NE of Winifred        | 3483                                 | 17             | yes             | 3380              |                                   |                        |                 | Diaz, Ken      |
| 24                 | 76M1263         | Fergus   | 22N 20E 22 C              | 06 23 78                        | Well      | 3 gpm                                      | Domestic use, hand dug well                          | 2686                                 | 14             | yes             | 3350              |                                   |                        |                 | Hegen          |
| 25                 | 76M1260         | Fergus   | 21N 15E 26 CA             | 06 22 78                        | Well      | 1 gpm (E)                                  | Domestic and stock use                               | 2592                                 | 10.6           | yes             | 3500              | 20                                |                        |                 | Marlin, Melvin |
| 26                 | 76M1249         | Fergus   | 20N 15E 10 AC             | 06 22 78                        | Well      | 3 gpm                                      | Used for watering lawn                               | 7852                                 | 12             | yes             | 3610              | 23                                |                        |                 | Ellis, Floyd   |
| 27                 | 76M1252         | Fergus   | 21N 17E 30 CA             | 06 22 78                        | Well      | 6 gpm (E)                                  | Domestic use   | 2348                                 | 13             | yes             | 2600              | 300                               |                        |                 | Boyes, Merle   |
| 28                 | 76M1251         | Fergus   | 21N 17E 30 DBA            | 06 22 78                        | Well      |  | Domestic use, located 10 miles W of Winifred         | 1463                                 | 17             | yes             | 2820              | 80                                |                        |                 | Dimmer, Tom    |
| 29                 | 76M1256         | Fergus   | 21N 18E 13                | 09 23 78                        | Well      |  | Domestic use   | 6647                                 | 13             | yes             | 3200              |                                   |                        |                 | Johnston, Greg |
| 30                 | MBMG60          | Fergus   | 20N 22E 36                | 09 13 78                        | Seep      |  | Located in a fellow field, approx 2 acres in size    |                                      |                | no              | 3150              |                                   |                        |                 |                |

## LEWISTOWN 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref | Field<br>no., number | County | Location<br>T R Sec Trect | Collection<br>Date<br>Mo Day Yr | Flow or yield<br>E-estimated<br>M-measured | Site description                      | Specific<br>conductivity<br>at 25 C | Field<br>temp.<br>C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name    |
|------------|----------------------|--------|---------------------------|---------------------------------|--|---------------------------------------|-------------------------------------|---------------------|-----------------|-----------------|--|------------------------|-----------------|-----------------|
| 31         | MBMG61               | Fergus | 19N 22E 01                | 09 13 76                        | Reservoir                                  | Stock use                             | 8930                                | 18                  | no              | 3100            |  |                        |                 |                 |
| 32         | MBMG69               | Fergus | 19N 22E 15                | 09 13 76                        | Reservoir                                  | Stock use, surrounded by seep         | 4460                                | 20                  | no              | 3120            |  |                        |                 |                 |
| 33         | 72M001               | Fergus | 19N 14E 05 DDA            | 11 16 71                        | Well                                       | Domestic and stock use                | 1780                                | 17                  | yes             | 3570            |  |                        | 20 211EGLE      | Campbell, Ben   |
| 34         | MBMG83               | Fergus | 19N 14E 08 B8             | 09 76                           | Well                                       | Stock use                             | 1930                                | 11                  | no              | 3550            |  |                        |                 | Campbell, Ben   |
| 35A        | MBMG80               | Fergus | 19N 14E 20 A              | 09 76                           | Well                                       | Unused                                | 5110                                | 13                  | no              | 3500            |  | 15                     |                 |                 |
| 35B        | MBMG81               | Fergus | 19N 14E 20 A              | 09 76                           | Spring                                     | Stock use                             | 1490                                | 14.9                | no              | 3600            |  |                        |                 |                 |
| 36         | 76M124               | Fergus | 19N 14E 28 CCB            | 09 21 76                        | Well                                       | Unused, Barber test site B.A.3, D-59  | 4104                                | 15                  | yes             | 3600            | 6  | 27                     |                 | Barber          |
| 37A        | MBMG78               | Fergus | 19N 14E 32 A8             | 09 76                           | Well                                       | Stock use except for drinking         | 3000                                | 15.8                | no              | 3600            |  | 300                    |                 | Barber, Nolan   |
| 37B        | MBMG79               | Fergus | 19N 14E 32 A8             | 09 76                           | Well                                       | Stock use only                        | 5220                                | 16                  | no              | 3600            |  | 300                    |                 | Barber, Nolan   |
| 38         | 76M124               | Fergus | 19N 14E 33 B8B            | 09 21 76                        | Well                                       | Unused, Barber test site B.A.3, D-58  | 3038                                | 8                   | yes             | 3800            | 7  | 33                     |                 | Barber          |
| 39         | 76M124               | Fergus | 19N 14E 33 CCB            | 09 21 76                        | Well                                       | Unused, Barber test site B.A.18, D-57 | 575                                 | 11                  | yes             | 3820            | 17   | 35                     |                 | Barber          |
| 40         | MBMG85               | Fergus | 19N 14E 07 DDA            | 09 78                           | Ditch                                      | Road ditch                            | 37810                               | 20                  | no              | 3780            |  |                        |                 | Smith, Stephen  |
| 41         | MBMG86               | Fergus | 19N 14E 25 AAAA           | 08 78                           | Well                                       | Unused                                | 4850                                | 14                  | no              | 3600            | 3  | 18                     |                 | Smith, Stephen  |
| 42         | MBMG87               | Fergus | 19N 14E 25 ADAA           | 08 78                           | Coulee                                     | Ponded water in coulee                | 4690                                | 24                  | no              | 3600            |  |                        |                 | Smith, Stephen  |
| 43A        | MBMG63               | Fergus | 19N 14E 30 AD             |                                 | Well                                       | Domestic use                          | 1240                                | 14.5                | no              | 3850            |  | 18                     |                 | Smith, Stephen  |
| 43B        | MBMG84               | Fergus | 19N 14E 35 AD             |                                 | Well                                       | Stock use and lawn irrigation         | 2210                                | 12.5                | no              | 3850            | 4  | 18                     |                 | Smith, Stephen  |
| 44         | MBMG67               | Fergus | 19N 14E 38 DO             |                                 | Creek                                      |                                       | 5570                                | 15.5                | no              | 3600            |  |                        |                 | Smith, Stephen  |
| 45         | MBMG76               | Fergus | 17N 14E 05 D              |                                 | Spring                                     |                                       | 2290                                | 12                  | no              | 3850            |  | 20                     |                 | Morris, Edward  |
| 46A        | MBMG71               | Fergus | 17N 14E 08 A8             |                                 | Spring                                     | Domestic use                          | 1310                                | 15                  | no              | 3700            |  | 20                     |                 | Morris, Edward  |
| 46B        | MBMG77               | Fergus | 19N 14E 08 AA             |                                 | Well                                       | Domestic use except for drinking      | 5240                                | 14                  | no              | 3700            |  | 15                     |                 | Barber, L. E.   |
| 47A        | MBMG73               | Fergus | 17N 14E 08 A              |                                 | Spring                                     | Stock use                             | 1810                                | 12                  | no              | 3700            |  | 15                     |                 | Morris, Edward  |
| 47B        | MBMG74               | Fergus | 17N 14E 08 A              |                                 | Spring                                     | Stock use                             | 2550                                | 12                  | no              | 3700            |  |                        |                 |                 |
| 47C        | MBMG75               | Fergus | 17N 14E 08 A              |                                 | Spring                                     | W of reservoir                        | 5780                                | 15.5                | no              | 3700            |  |                        |                 |                 |
| 48         | MBMG70               | Fergus | 17N 14E 08 C8             |                                 | Coulee                                     | Stock use                             | 860                                 | 17                  | no              | 3700            |  |                        |                 | Morris, Edward  |
| 49         | MBMG72               | Fergus | 17N 14E 09 CC             |                                 | Spring                                     | Stock use                             | 4920                                | 15.5                | no              | 3730            |  |                        |                 |                 |
| 50         | MBMG69               | Fergus | 17N 14E 15 B8             |                                 | Ditch                                      | Road ditch                            | 2850                                | 17                  | no              | 3750            |  |                        |                 |                 |
| 51         | MBMG68               | Fergus | 17N 14E 15 AA             |                                 | Well                                       | Domestic use                          | 670                                 | 18                  | no              | 3750            | flowing                                    | 1800                   |                 | Wicken, Francis |
| 52         | MBMG87               | Fergus | 17N 15E 07                | 09 76                           | Well                                       | Unused, water has a sulphur smell     | 3720                                | 16                  | no              | 3690            | flowing                                    | 1712                   |                 | Morris, Edward  |
| 53         | MBMG88               | Fergus | 17N 15E 07                | 09 76                           | Well                                       | Unused                                | 12470                               | 15                  | no              | 3570            |  |                        |                 | Morris, Edward  |
| 54         | MBMG11               | Blaine | 28N 22E 08 ADD            | 07 07 76                        | Creek                                      | Pool in creek bed                     | 1170                                | 30.2                | no              | 3010            |  |                        |                 |                 |

## LEWISTOWN 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>no. | County    | Location                        | Collection<br>date | Flow or yield<br>E-estimated<br>M-measured | Site description  | Specific<br>conductivity<br>at 25 °C | Field<br>temp.,<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name        |
|-------------|--------------|-----------|---------------------------------|--------------------|--|---|--------------------------------------|-----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|---------------------|
| 55          | MBMG10       | Blaine    | 26N 22E 03 D4B8 07 76 Reservoir | 07 76              |  | Small reservoir   | 250                                  | 24.6                  | no              | 3120              |                                   |                        |                 | Ludde, Frank        |
| 56          | MBMG9        | Blaine    | 26N 21E 34 AAAD 07 78 Well      | 07 78              | 0.8 gpm                                    | Stock use   | 30                                   | 14                    | no              | 3320              |                                   |                        |                 |                     |
| 57          | MBMG8        | Blaine    | 26N 22E 04 ACAD 07 75 Reservoir | 07 75              |  | Large reservoir   | 300                                  | 25.1                  | no              | 3380              |                                   |                        |                 |                     |
| 58          | MBMG7        | Blaine    | 25N 22E 10 BABC 07 76 Reservoir | 07 76              |  | Small reservoir   | 340                                  | 28.5                  | no              | 3400              |                                   |                        |                 |                     |
| 59          | MBMG5        | Blaine    | 25N 23E 07 AABC 07 76 Spring    | 07 76              | 20 gpm (M)                                 | Brucie Spring   | 510                                  | 12.8                  | no              | 3490              |                                   |                        |                 | Hewley, David       |
| 60          | MBMG8        | Fergus    | 18N 22E 03 09 13 76 Well        | 09 13 76           |  | Domestic use, water forms white deposits and is corrosive | 2010                                 | 16                    | no              | 3500              |                                   | 12                     |                 | Siskiy, John        |
| 61          | MBMG48       | Fergus    | 18N 22E 20 09 10 76 Well        | 09 10 76           |  | Domestic and stock use                                    | 1470                                 | 14                    | no              | 3540              |                                   | 10                     |                 | Emery, Floyd        |
| 62          | MBMG47       | Fergus    | 18N 22E 32 09 13 76 Spring      | 09 13 76           |  | Domestic use  | 1390                                 | 14.5                  | no              | 3550              |                                   |                        |                 | Knox                |
| 63          | MBMG57       | Fergus    | 19N 23E 13 09 13 76 Well        | 09 13 76           |  | Domestic and stock use, water forms white deposits        | 2110                                 | 16.5                  | no              | 3000              |                                   | 14                     |                 | Siskiy, John        |
| 64          | MBMG48       | Fergus    | 17N 21E 35 DCC 09 76 Creek      | 09 76              |  | Domestic use  | 620                                  | 15                    | no              | 3830              |                                   |                        |                 |                     |
| 65          | MBMG49       | Fergus    | 16N 21E 06 DCC 09 10 76 Creek   | 09 10 76           |  | Abandoned, signal sample taken                            | 740                                  | 16                    | no              | 5380              |                                   |                        |                 |                     |
| 66          | MBMG50       | Fergus    | 15N 22E 03 09 10 76 Reservoir   | 09 10 76           |  | Domestic use  | 48500                                | 28                    | no              | 3970              |                                   |                        |                 |                     |
| 67          | MBMG44       | Fergus    | 15N 22E 12 09 10 76 Well        | 09 10 76           |  | Domestic use  | 1540                                 | 17.5                  | no              | 3850              |                                   | 780                    |                 | Fitzgerald, Lester  |
| 68          | MBMG19       | Petroleum | 16N 28E 14 A8 09 78 Creek       | 09 78              |  | Domestic use  | 1480                                 | 18.5                  | no              | 3900              |                                   | 1400                   | 211MSBY         | Continental Oil Co. |
| 69          | MBMG38       | Fergus    | 14N 21E 06 BCD 09 09 78 Creek   | 09 09 78           |  | Domestic use, water has a high iron content               | 1450                                 | 13.2                  | no              | 4150              | 4                                 | 25                     |                 | Charbonneau, Amos   |
| 70          | MBMG31       | Fergus    | 16N 21E 17 CDBC 09 10 76 Well   | 09 10 76           |  | Domestic and stock use, water contains much iron          | 570                                  | 11.5                  | no              | 4000              |                                   | 480                    |                 | Gallat              |
| 71          | MBMG42       | Fergus    | 16N 20E 15 DDCB 09 10 76 Creek  | 09 10 76           |  | Domestic and stock use                                    | 1280                                 | 14                    | no              | 4100              |                                   |                        |                 |                     |
| 72          | MBMG41       | Fergus    | 16N 20E 27 DDCD 09 10 78 Well   | 09 10 78           |  | Domestic and stock use                                    | 770                                  | 17                    | no              | 4320              |                                   | 400                    |                 | Potter, George      |
| 73          | MBMG51       | Fergus    | 16N 20E 14 CABD 09 10 78 Well   | 09 10 78           |  | Domestic use  | 1200                                 | 16                    | no              | 4250              |                                   | 26                     |                 | Duffy, C. L.        |
| 75          | MBMG38       | Fergus    | 16N 19E 28 ABD 09 10 78 Spring  | 09 10 78           |  | Domestic use  | 500                                  | 14                    | no              | 4770              |                                   |                        |                 | Rett                |
| 76          | MBMG37       | Fergus    | 16N 19E 34 ABD 09 10 78 Well    | 09 10 78           |  | Domestic use  | 480                                  | 18                    | no              | 4520              |                                   | 5                      |                 | Wickham, James      |
| 77          | MBMG39       | Fergus    | 16N 19E 03 AB8B 09 10 76 Creek  | 09 10 76           | 3 cts                                      | Boyd Creek  | 960                                  | 14                    | no              | 4400              |                                   |                        |                 |                     |
| 78          | MBMG40       | Fergus    | 15N 19E 24 D98B 09 76 Spring    | 09 76              |  | Domestic use  | 240                                  | 10                    | no              | 4700              |                                   |                        |                 | Heath               |
| 79          | MBMG19       | Petroleum | 14N 28E 02 09 76 Well           | 09 76              |  | Domestic use, water has a sulphur smell                   | 5380                                 | 14                    | no              | 2900              |                                   | 1000                   | 211MSBY         | Soil                |
| 80          | MBMG25       | Fergus    | 14N 19E 06 CCAB 09 19 76 Creek  | 09 19 76           | 8 cts                                      |   | 460                                  | 13.5                  | no              | 4170              |                                   |                        |                 |                     |
| 81          | 64N0019      | Fergus    | 16N 18E 09 BBA 03 29 87 Well    | 03 29 87           | 50 gpm (M)                                 | Stock use   |                                      | 10                    | yes             | 4000              |                                   | 514                    | 217KOTN         | Cline, Earl         |
| 82          | 64N0018      | Fergus    | 16N 18E 09 BBA 03 29 87 Well    | 03 29 87           | 50 gpm (M)                                 | Stock use   |                                      | 10                    | yes             | 4150              | 80                                | 1100                   | 217KOTN         | Phillips, Robert    |
| 83          | 64N0006      | Fergus    | 16N 17E 18 BDD 04 04 87 Well    | 04 04 87           | 100 gpm (M)                                | Stock use, water was stained and from this water          |                                      | 8.3                   | yes             | 3530              |                                   | 1240                   | 217KOTN         | Hutcheon Colony     |
| 84          | 64N0011      | Fergus    | 16N 17E 18 BAA 04 04 87 Well    | 04 04 87           | 1 gpm (E)                                  | At Spring Creek Hutcheon Colony                           |                                      | 10.6                  | yes             | 3520              |                                   | 311                    | 211CLND         |                     |

## LEWISTOWN 1° x 2° Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref.<br>no.,<br>number | Field<br>no. | County       | Location<br>T R S Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E = estimated<br>M = measured | Site description                               | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>depth<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name    |
|-------------------------------|--------------|--------------|-------------------------|---------------------------------|-----------|--|--|--------------------------------------|----------------------|-----------------|-----------------|--|----------------------|-----------------|-----------------|
| 85                            | 64M0018      | Fergus       | 18N 17E 17B CD          | 04 04 87                        | Well      | 1 gpm (E)                                      | Located 3.1 miles NW of Hanover                |                                      | 11.1                 | yes             | 3810            | 1100                                     | 217KOTN              |                 | Hatfield Colony |
| 86                            | 64M0019      | Fergus       | 18N 17E 21 ADD          | 03 28 87                        | Well      | 4.8 gpm (M)                                    | Located 1.4 miles NW of Hanover                |                                      | 11.1                 | yes             | 3400            | 3400                                     | 280 217KOTN          |                 | Brink, C        |
| 87                            | 64M0019      | Fergus       | 18N 17E 21 ADD          | 03 28 87                        | Well      | 10 gpm (M)                                     | Water contains enough fluoride to mottle teeth |                                      | 19.4                 | yes             | 3600            | flowing                                  | 850 217KOTN          |                 | Anderson, P     |
| 88                            | 64M0019      | Fergus       | 18N 17E 02 CBCC         | 03 29 87                        | Well      | 13 gpm (M)                                     | Domestic water area of adjacent                | 400                                  | 8.3                  | no              | 4095            | flowing                                  | 42 211CLRD           |                 | Yam, Gary       |
| 89                            | 64M0015      | Fergus       | 18N 17E 32 BBD          | 03 29 87                        | Well      |  | Static shut hole connected to a water well     |                                      | 8.3                  | yes             | 4095            | flowing                                  |                      |                 | Yager, J.       |
| 90                            | 64M0020      | Fergus       | 14N 17E 01 DDDA         |                                 | Creek     | .75 cfs  | Cottonwood Creek                               | 610                                  | 10                   | no              | 4220            |  |                      |                 |                 |
| 91                            | 64M0022      | Fergus       | 15N 16E 29 CDD          | 03 29 87                        | Well      | 27 gpm (M)                                     | Domestic and stock use                         |                                      | 14.4                 | yes             | 4060            | flowing                                  | 1586 217KOTN         |                 | Wichman, J      |
| 92                            | 64M0023      | Fergus       | 15N 16E 34 ADD          | 03 29 87                        | Well      | 30 gpm (M)                                     | Domestic use                                   | 3450                                 | 17                   | no              | 4030            |  | 1470 217KOTN         |                 | Wichman, W      |
| 93                            | 64M006       | Petroleum    | 18N 27E 31 C            |                                 | Well      |  | Unused, Holzer test site                       | 3475                                 | 15                   | yes             | 3000            | 8  | 28 211CLRD           |                 | Bauer           |
| 94                            | 76M1240      | Judith Basin | 18N 14E 07 BDA          | 09 21 76                        | Well      |  |  |                                      |                      |                 |                 |  |                      |                 |                 |
| 95                            | 64M0081      | Judith Basin | 14N 14E 02 ADD          |                                 | Spring    |  | Located 20 km S of house                       | 480                                  | 12                   | no              | 4120            |  |                      |                 | Puring          |
| 96                            | 64M0084      | Fergus       | 15N 16E 11 BBD          | 09 10 76                        | Well      |  | Domestic water produces slight rust stains     | 460                                  | 12.5                 | no              | 3950            | 3  | 10                   |                 | Wichman, R      |
| 97                            | 64M0084      | Fergus       | 15N 16E 09 ADD          | 09 10 76                        | Well      |  | Domestic use                                   | 400                                  | 15                   | no              | 3790            | 9  | 50                   |                 | Martin          |
| 98                            | 64M0084      | Fergus       | 15N 16E 29 DAD          |                                 | Spring    | 1 gpm  | Domestic use                                   | 540                                  | 13.5                 | no              | 3880            |  |                      |                 | Postill, George |
| 99                            | 64M043       | Judith Basin | 18N 15E 02 CCBB         | 09                              | 76        | Pond   | Constant much vegetation                       | 4340                                 | 20                   | no              | 3730            |  |                      |                 |                 |
| 100                           | 64M042       | Judith Basin | 18N 15E 18 BCAA         |                                 | Spring    | 0.5 gpm  | Stock use                                      | 1180                                 | 18                   | no              | 3940            | 8  |                      |                 |                 |
| 101                           | 64M045       | Judith Basin | 18N 15E 12 CA           |                                 | Creek     |  | Indian Creek                                   | 1250                                 | 18                   | no              | 3590            |  |                      |                 | Wichmetz, Larry |
| 102                           | 64M044       | Judith Basin | 18N 15E 13 BABA         |                                 | Well      |  | Domestic use                                   | 720                                  | 18.5                 | no              | 3720            | flowing                                  | 2600                 |                 | Dennis, P.      |
| 103                           | 64M044       | Judith Basin | 18N 15E 13 BABA         |                                 | Well      | 4 gpm  | Discharges to an unnamed creek                 | 420                                  | 12                   | no              | 4000            |  |                      |                 |                 |
| 104                           | 64M059       | Judith Basin | 15N 15E 27 CDDA         |                                 | Spring    | 45 cfs   | Judith River                                   | 420                                  | 18                   | no              | 3940            |  |                      |                 |                 |
| 105                           | 64M040       | Judith Basin | 18N 14E 02 BDA          |                                 | Creek     | 6 cfs  | Sage Creek                                     | 1680                                 | 18                   | no              | 3700            |  |                      |                 |                 |
| 106                           | 64M060       | Judith Basin | 15N 15E 31 6CCC         |                                 | Well      |  | Domestic use, water is hard                    | 920                                  | 13                   | no              | 4060            | 6  | 12                   |                 |                 |
| 107                           | 64M062       | Judith Basin | 15N 14E 01 ADD          |                                 | Creek     | 1 cfs  | Contains much aquatic vegetation               | 890                                  | 18.5                 | no              | 4050            |  |                      |                 |                 |
| 108                           | 64M004       | Petroleum    | 15N 27E 29              |                                 | Well      |  | Abandoned                                      | 10220                                | 14                   | no              | 2950            |  |                      |                 | Iverson, Lee    |
| 109                           | 64M003       | Petroleum    | 18N 27E 03 BB           |                                 | Well      |  | Abandoned, water smells of sulphur             | 1000                                 | 12.2                 | no              | 2950            |  |                      |                 | Iverson, Lee    |
| 110                           | 64M002       | Petroleum    | 18N 25E 31              |                                 | Reservoir |  |  | 550                                  | 17                   | no              | 3000            |  |                      |                 |                 |
| 111                           | 64M001       | Petroleum    | 17N 25E 34              |                                 | Reservoir |  |  | 320                                  | 16.9                 | no              | 3000            |  |                      |                 |                 |
| 112                           | 64M005       | Petroleum    | 17N 27E 05              |                                 | Pond      | no flow  |  | 860                                  | 14                   | no              | 2980            |  |                      |                 |                 |
| 113                           | 64M014       | Petroleum    | 17N 26E 31 C            |                                 | Well      | Stock use                                      |  | 1430                                 | 16                   | no              | 3100            |  |                      |                 |                 |
| 114                           | 64M013       | Petroleum    | 17N 25E 27              |                                 | Well      | 15 gpm   | Domestic use                                   | 1810                                 | 12                   | no              | 3050            | 45                                       | 120                  |                 | Lewis           |

## LEWISTOWN 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>number | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                                     | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analyst | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name              |
|-------------|-----------------|--------------|---------------------------|---------------------------------|--|--|--------------------------------------|----------------------|----------------|-------------------|-----------------------------------|------------------------|-----------------|---------------------------|
| 115         | 63M0009         | Petroleum    | 17N 24E 17 CC             | 07 10 83                        | Well   | Located 38 miles NE of Lewistown                     | 1370                                 | 16                   | yes            | 3100              | 3221                              | 327MSNC                |                 |                           |
| 115         | 63M0010         | Petroleum    | 16N 28E 18 DA             | 07 10 83                        | Creek  | Ford Creek   | 5480                                 | 16                   | no             | 2890              |                                   |                        |                 |                           |
| 115         | 63M0011         | Petroleum    | 16N 28E 18 DA             | 07 10 83                        | Creek  | War Horse Lake                                       | 3030                                 | 16                   | no             | 2260              |                                   |                        |                 |                           |
| 115         | 45M0016         | Petroleum    | 16N 26E 09 AD             | 03 16 46                        | Well   | Located 1 mile NE of War Horse Lake                  | 290                                  | 14                   | no             | 2900              |                                   |                        | 320TSLP         |                           |
| 119         | MBMG10          | Petroleum    | 16N 27E 09 AD             |                                 | Reservoir                                      | Stock use  |                                      |                      | no             | 2860              |                                   |                        |                 |                           |
| 120         | 45M0014         | Petroleum    | 16N 27E 26 88             | 03 06 48                        | Well   | Located 12 miles E of War Horse Lake                 |                                      |                      | yes            | 2340              |                                   |                        | 217LKOT         | Pase, Joe                 |
| 121         | MBMG23          | Petroleum    | 16N 28E 10 AD             |                                 | Well   | Domestic use   | 1680                                 | 12                   | no             | 2940              | 106                               |                        |                 | Pase, Joe                 |
| 122         | MBMG22          | Petroleum    | 16N 28E 15                |                                 | Spring   | Stock use, alkali below                              | 550                                  | 10.8                 | no             | 2810              |                                   |                        | 217KOTN         | Pase, Joe                 |
| 123         | 2BM0001         | Petroleum    | 16N 28E 28 CC             | 04 28                           | Well   | Located 18 miles E of War Horse Lake                 |                                      | 15                   | yes            | 3050              |                                   |                        |                 |                           |
| 124         | MBMG21          | Petroleum    | 16N 28E 34 AD             |                                 | Reservoir                                      | Stock use  | 810                                  |                      | no             | 2860              |                                   |                        |                 |                           |
| 125         | MBMG20          | Petroleum    | 15N 29E 06                |                                 | Reservoir                                      | Stock use, alkali below dam                          | 1920                                 | 10.8                 | no             | 2880              |                                   |                        | 217KOTN         |                           |
| 126         | 25M0001         | Petroleum    | 16N 29E 09 AC             | 01 07 28                        | Well   | Located 24 miles SE of War Horse Lake                | 12040                                |                      | yes            | 2810              |                                   |                        | 337MSNC         |                           |
| 127         | 68M0008         | Petroleum    | 15N 28E 11 D3             | 10 14 68                        | Well   | Located 26 miles SE of War Horse Lake                | 1690                                 |                      | yes            | 2850              |                                   |                        | 217LKOT         | Heintz, Marvin            |
| 128         | 68M0003         | Petroleum    | 15N 28E 14 AD             | 12 04 68                        | Well   | High water table                                     | 1150                                 | 14                   | no             | 4210              |                                   |                        |                 |                           |
| 129         | MBMG67          | Judith Basin | 15N 14E 22 CCCC           |                                 |  |  |                                      |                      |                |                   |                                   |                        |                 |                           |
| 130         | MBMG17          | Petroleum    | 14N 28E 06 C              |                                 | Well   | Domestic use, water is corrosive                     | 5630                                 | 12.5                 | no             | 2880              | 2                                 | 125                    |                 | Bohn                      |
| 131         | MBMG39          | Petroleum    | 15N 27E 11 CA             |                                 | Well   | Stock use  | 4290                                 | 17                   | no             | 2900              | 125                               | 200                    |                 | K-pl, Vick                |
| 132         | MBMG38          | Petroleum    | 15N 27E 15 C              |                                 | Well   | Domestic use except for drinking                     | 2540                                 | 22                   | no             | 2880              |                                   | 250                    |                 | Siew, Gene                |
| 133         | MBMG54          | Judith Basin | 15N 16E 11 AADA           |                                 | Creek  | Box Elder Creek                                      | 6830                                 | 4                    | no             | 2970              |                                   |                        |                 | Svensson                  |
|             |                 |              |                           |                                 |  | Domestic use, water leaves white deposits on faucets | 470                                  | 12                   | no             | 2920              |                                   | 25                     |                 |                           |
| 135         | MBMG121         | Phillips     | 25N 28E 01                | 07 23 78                        | Reservoir                                      | Stock use  | 220                                  | 25                   | no             | 2600              |                                   |                        |                 |                           |
| 136         | MBMG122         | Phillips     | 25N 28E 16 BCA            | 07 23 78                        | Creek  | Bever Creek  | 3130                                 | 23                   | no             | 2580              |                                   |                        |                 |                           |
| 137         | MBMG123         | Phillips     | 25N 28E 20 BDB            | 07 23 78                        | Well   | Domestic use, water leaves white deposits on faucets | 1680                                 | 18                   | no             | 2750              | flowing                           |                        |                 | Hagena, I.<br>Cumming, R. |
| 138         | MBMG52          | Judith Basin | 15N 14E 07 ABAD           |                                 |  | Domestic use, seep nearby                            | 2020                                 | 18                   | no             | 2900              | 44                                | 470                    |                 |                           |
| 139         | MBMG125         | Phillips     | 25N 28E 29 BBB            | 07 23 78                        | Well   | Domestic use, seep nearby                            | 2020                                 | 18                   | no             | 2900              |                                   |                        |                 |                           |
| 140         | MBMG127         | Phillips     | 25N 28E 32 CDD            | 07 23 78                        | Well   | Domestic and stock use                               | 2750                                 | 11                   | no             | 2910              | 200                               | 800                    |                 | Mills, B.                 |
| 141         | MBMG128         | Phillips     | 25N 28E 32 CCA            | 07 23 78                        | Pond   | Muddy  | 180                                  | 23                   | no             | 2810              |                                   |                        |                 | Mills, B.                 |
| 142         | MBMG120         | Phillips     | 25N 27E 34 CCB            | 07 24 78                        | Reservoir                                      | Stock use, large seep nearby                         | 870                                  | 25                   | no             | 2820              |                                   |                        |                 | Strand, Chit              |
| 143         | MBMG119         | Phillips     | 25N 27E 34 BAD            | 07 24 78                        | Well   | Water is not used for drinking                       | 8240                                 | 15                   | no             | 2780              | 200                               | 900                    |                 | Isaline                   |
| 144         | MBMG118         | Phillips     | 25N 28E 14 DA             | 07 24 78                        | Well   |  | 890                                  | 14                   | no             | 2980              |                                   |                        |                 |                           |

## LEWISTOWN 1° x 2° Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map | Field no.   | County   | Location        | Collection date    | Flow or Yield | Site description                                 | Specific conductivity at 25 °C | Field temp. | Lab analysis | Altitude (ft.) | Basic water level (ft.) | Well depth (ft.) | Aquifer code | Owner's name   |
|-----|-------------|----------|-----------------|--------------------|---------------|--|--------------------------------|-------------|--------------|----------------|-------------------------|------------------|--------------|----------------|
|     |             |          | T               | R                  | S             | Tract  | Mo                             | Da          | Y            | Sources        | M = measured            |                  |              |                |
|     | 145 MBMG181 | Phillips | 24N 28E 26      | 07 24 76 Well      | 5 g/m         | Domestic and stock use                           | 1260                           | 16          | no           | 3130           |                         |                  |              | Cattle Co.     |
|     | 146 MBMG182 | Phillips | 24N 28E 36      | 07 24 76 Pond      |               | Natural pond in a coulee bottom                  | 9070                           | 20          | no           | 3000           |                         |                  |              | Williams       |
|     | 147 MBMG183 | Phillips | 24N 28E 10      | 07 25 76 Spring    | no flow       | Domestic use, water has a salt taste             | 2500                           | 25          | no           | 3250           |                         |                  |              |                |
|     | 148 MBMG187 | Phillips | 24N 24E 15      | 07 25 76 Reservoir |               | Stock use, water pumped by sump                  | 2500                           | 25          | no           | 3250           |                         |                  |              |                |
|     | 149 MBMG158 | Phillips | 24N 24E 22      | 07 25 76 Pond      |               | Salts on bank below reservoir                    | 860                            | 29          | no           | 3280           |                         |                  |              |                |
|     | 150 MBMG169 | Phillips | 24N 24E 22      | 07 25 76 Pond      |               | Salt crust around entire pond                    | 6680                           | 25          | no           | 3280           |                         |                  |              |                |
|     | 151 MBMG151 | Phillips | 25N 23E 21      | 07 25 76 Well      | 10 g/m        | Not used for drinking                            | 1410                           | 10          | no           | 3580           | 40                      | 60               |              | Michie, V. C.  |
|     | 152 MBMG153 | Phillips | 25N 24E 27      | 07 25 76 Well      | 30 g/m        | Domestic use                                     | 780                            | 10          | no           | 4000           | 15                      | 170              |              | Kolozak, G.    |
|     | 153 MBMG148 | Phillips | 25N 24E 27      | 07 25 76 Spring    |               | Domestic use, spring is directly below reservoir | 6400                           | 18          | no           | 3820           |                         |                  |              |                |
|     | 154 MBMG166 | Phillips | 25N 23E 27 BCA  | 07 25 76 Reservoir |               | Stock use  | 720                            | 27          | no           | 3600           |                         | 15               |              |                |
|     | 155 MBMG151 | Phillips | 25N 23E 33 ACR  | 07 25 76 Well      | 3 g/m         | Not used for drinking                            | 3000                           | 8.5         | no           | 3600           | 10                      | 30               |              | Michie, V.     |
|     | 156 MBMG166 | Phillips | 24N 22E 34      | 07 24 76 Reservoir |               | Stock use, seep downstream from dam              | 1830                           | 23          | no           | 3100           |                         |                  |              | Robinson, D.   |
|     | 157 MBMG160 | Phillips | 24N 23E 31      | 07 24 76 Reservoir |               | Stock use, seep downstream from dam              | 1480                           | 25          | no           | 3200           |                         |                  |              |                |
|     | 158 MBMG162 | Phillips | 24N 23E 12      | 07 24 76 Reservoir |               | Stock use, seep downstream from dam              | 280                            | 23          | no           | 3000           |                         |                  |              |                |
|     | 159 MBMG168 | Phillips | 23N 22E 13      | 07 24 76 Pond      |               | Seep nearby                                      | 1870                           | 23          | no           | 2850           |                         |                  |              |                |
|     | 160 MBMG164 | Phillips | 23N 25E 08      | 07 24 76 Well      |               | Domestic and stock use, water is corrosive       | 2070                           | 16          | no           | 3040           | 80                      | 900              |              | Robinson, D.   |
|     | 161 MBMG127 | Phillips | 16N 19E 22 DABD | 07 24 76 Well      |               | Stock use  | 290                            | 17          | no           | 3640           |                         |                  |              | Tremblay, W.   |
|     | 162 MBMG128 | Phillips | 25N 23E 32 ACC  | 07 23 76 Well      |               | Domestic and stock use                           | 3680                           | 10          | no           | 2760           | 135                     | 750              |              |                |
|     | 163 MBMG129 | Phillips | 25N 23E 32 BCA  | 07 23 76 Reservoir |               | Stock use, water is corrosive                    | 10                             | 28          | no           | 2900           |                         |                  |              | Peigneux, J.   |
|     | 164 MBMG128 | Phillips | 28N 29E 19      | 07 23 78 Well      |               | Domestic and stock use                           | 3740                           | 19          | no           | 2840           | 325                     | 660              |              |                |
|     | 165 MBMG154 | Phillips | 25N 24E 27      | 07 25 76 Spring    |               | Used for municipal supply in Zornian             | 450                            | 16          | no           | 4000           |                         |                  |              | Robinson, Jess |
|     | 166 MBMG183 | Phillips | 23N 23E 13      | 07 24 76 Reservoir |               | Stock use  | 1410                           | 22          | no           | 2900           |                         |                  |              |                |
|     | 167 MBMG168 | Phillips | 24N 28E 10      | 07 24 76 Spring    |               | Piped 2.5 miles from source                      | 580                            | 14.6        | no           | 3260           |                         |                  |              |                |
|     | 168 MBMG170 | Phillips | 24N 27E 14      | 07 24 76 Creek     | no flow       |  | 550                            | 25          | no           | 2700           |                         |                  |              | Robinson, F.   |
|     | 169 MBMG171 | Phillips | 24N 28E 27      | 07 24 76 Well      | 12 g/m        | Domestic and stock use                           | 3650                           | 18          | no           | 2980           | 100                     | 900              |              | Jacobs, F.     |
|     | 170 MBMG172 | Phillips | 24N 28E 27      | 07 24 76 Reservoir |               | Stock and garden irrigation use                  | 450                            | 29          | no           | 2980           |                         |                  |              | Jacobs, F.     |
|     | 171 MBMG173 | Phillips | 24N 28E 19      | 07 24 78 Well      |               | Stock use  | 2130                           | 13          | no           | 2700           |                         | 26               |              | Knigh, W.      |
|     | 172 MBMG176 | Phillips | 23N 28E 35      | 07 24 76 Reservoir | no flow       |  | 180                            | 26          | no           | 2800           |                         |                  |              |                |
|     | 173 MBMG178 | Phillips | 23N 28E 12 BBD  | 07 24 76 Well      |               | Domestic use                                     | 1860                           | 16          | no           |                |                         |                  |              |                |
|     | 174 MBMG174 | Phillips | 24N 28E 16 BCD  | 07 23 76 Well      | 10 g/m        | Water is corrosive, contains salts and soda      | 3040                           | 16          | no           | 2500           | 180                     | 690              |              | Blunt, C.      |

## LEWISTOWN 1" x 2" Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref.<br>no. | Field<br>number | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>E = estimated<br>M = measured | Site description                       | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name           |
|--------------------|-----------------|--------------|---------------------------|---------------------------------|--------|--|--|--------------------------------------|---------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|------------------------|
| 175                | MBMG177         | Phillips     | 23N 29E 33                | 07 24 76                        | Well   |  | Domestic use, water encrusts pipes     | 1530                                 | 14                  | no              | 2560              |                                   |                        |                 | Sandrick, H            |
| 176                | MBMG18          | Fergus       | 14N 17E 08 DDAC           |                                 | Well   |  | Domestic use                           | 1800                                 | 10                  | no              | 4200              |                                   |                        |                 | Olsen, John M.         |
| 176                | MBMG18          | Fergus       | 18N 22E 14                |                                 | Spring |  | Stock use                              | 7400                                 | 15                  | no              |                   |                                   |                        |                 |                        |
| 179                | MBMG56          | Fergus       | 17N 15E 07 AD             |                                 | Spring |  |  | 43520                                | 15                  | no              |                   |                                   |                        |                 | Morris, E.             |
| 180                | 76M0236         | Fergus       | 17N 14E 06                | 04 09 76                        | Well   |  | Unused, Melton test area               | 7978                                 | 5                   | yes             |                   | 6                                 | 54                     |                 |                        |
| 181                | 76M1243         | Fergus       | 17N 14E 06                | 09 21 76                        | Well   |  | Unused, Melton test site, M9D53        | 4046                                 | 15                  | yes             |                   | 7                                 | 63                     |                 |                        |
| 182                | 73M0845         | Fergus       | 17N 18E 19                | 08 17 73                        | Spring |  | Brooks warm spring                     | 1754                                 | 20                  | yes             | 3900              |                                   |                        | 331MDSN         |                        |
| 183                | 76M0237         | Fergus       | 19N 14E 33 88CD           | 04 09 76                        | Well   |  | Unused, Barber test area, D48, BA19-74 | 4108                                 | 12                  | yes             |                   | 19                                | 33                     |                 | Gilkey                 |
| 184                | 76M1238         | Fergus       | 20N 16E 24                | 09 22 76                        | Well   |  | Unused                                 | 3818                                 | 12                  | yes             |                   |                                   | 40                     |                 |                        |
| 185                | 76M1237         | Fergus       | 20N 16E 24 8D             | 09 22 76                        | Spring | 30 gpm (E)                                     | Unused                                 | 7670                                 | 16                  | yes             | 3700              |                                   |                        |                 | Gilkey                 |
| 186                | 64M0014         | Fergus       | 17N 18E 01 ACC            | 04 03 67                        | Well   | 6 gpm (M)                                      | Domestic and stock use                 |                                      | 8.3                 | yes             | 4000              |                                   | 685                    | 211EGLE         | Wichman, E.            |
| 187                | 64M0013         | Fergus       | 18N 16E 01 ADB            | 04 04 67                        | Well   |  | Domestic and stock use                 |                                      |                     | yes             | 3830              |                                   | 174                    | 211EGLE         | Dwyne, H. L.           |
| 188                | 64M0007         | Fergus       | 18N 16E 23 C8D            | 04 04 67                        | Well   | 2 gpm (E)                                      | Stock use                              |                                      |                     | yes             | 3900              |                                   | 300                    | 211EGLE         | Conrad, Robert         |
| 189                | 64M0008         | Fergus       | 18N 17E 21 ABC            | 04 04 67                        | Well   |  | Domestic use                           |                                      |                     | yes             |                   |                                   |                        | 211EGLE         | Hunnswell, A           |
| 190                | 64M0010         | Fergus       | 18N 18E 12 ACA            | 04 03 67                        | Well   | 6 gpm (M)                                      | Domestic and stock use                 |                                      |                     | yes             | 3770              |                                   | 376                    | 211EGLE         | Arnsen, Ken            |
| 191                | 64M0017         | Fergus       | 18N 19E 08 BCD            | 04 03 67                        | Well   |  | Domestic and stock use                 |                                      |                     | yes             | 4850              |                                   | 851                    | 211EGLE         | Arnsen, Ken            |
| 192                | 72M0066         | Fergus       | 18N 20E 34 8C             | 04 10 72                        | Well   |  | Unused, Mont 25C, U8GS well 5.34       | 1037                                 | 26.6                | yes             | 4850              |                                   |                        | 211EGLE         | Cardinal Petroleum Co. |
| 193                | 72M0067         | Fergus       | 18N 20E 34 8C             | 04 10 72                        | Well   |  | Unused, Mont 25C, U8GS                 | 3420                                 | 26.6                | yes             | 4950              |                                   |                        | 211EGLE         | Cardinal Petroleum Co. |
| 194                | 72M0067         | Fergus       | 19N 16E 11 88B            | 11 16 71                        | Well   |  | Stock use, Mont 25C, U8GS              | 5680                                 | 10.5                | yes             | 3400              |                                   |                        | 211EGLE         | Glass, Charles         |
| 195                | MBMG34          | Judith Basin | 17N 14E 33 DA8B           |                                 | Well   | 3.5 gpm  | Domestic use, water is soft            | 810                                  |                     | no              | 3880              |                                   | 1578                   |                 | Carver                 |
| 196                | MBMG39          | Judith Basin | 16N 14E 09 BD0C           |                                 | Well   |  | Domestic use                           | 740                                  | 12                  | no              | 3900              |                                   | 1350                   |                 | Boeck                  |
| 197                | MBMG41          | Judith Basin | 16N 14E 13 BCDC           |                                 | Creek  | 0.25 cfs                                       |  | 800                                  | 19                  | no              | 3990              |                                   |                        |                 |                        |
| 198                | MBMG46          | Judith Basin | 16N 15E 24 AB8A           |                                 | Spring |  | Stock use, water contains iron         | 830                                  | 13                  | no              | 3950              |                                   | 8                      |                 |                        |

## LEWISTOWN

## Chemical Analyses

| Map<br>ref | Location<br>T R Sec Trect | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 21         | 21N 14E 07 8 CDC          | 01 15 76                        | Well   | 340             | 190                    | 845            | 11.5                  | .73          | 1.28                   | 11.8                          | 553                                     |                                      | 25               | 2855                          |
| 22         | 22N 20E 02                | 09 23 76                        | Well   | 7.3             | 1.8                    | 1100           | 2.8                   | .25          | .01                    | 6.7                           | 544                                     |                                      | 1445             | 5.8                           |
| 23         | 22N 20E 228               | 09 23 76                        | Well   | 5.4             | 1.5                    | 890            | 2.3                   | .12          | .01                    | 7.8                           | 1221                                    | 13                                   | 119.5            | 768                           |
| 24         | 22N 17E 35 DC             | 09 22 76                        | Well   | 233             | 123                    | 215            | 3.2                   | .05          | .01                    | 11.5                          | 451                                     |                                      | 100              | 964                           |
| 25         | 21N 15E 26 CA             | 09 22 76                        | Well   | 82              | 238                    | 199            | 1.9                   | .06          | <.01                   | 13.6                          | 616                                     |                                      | 80               | 928                           |
| 26         | 20N 15E 10 AC             | 09 22 76                        | Well   | 406             | 780                    | 875            | 12                    | .07          | .02                    | 15.1                          | 446                                     |                                      | 116              | 5270                          |
| 27         | 21N 17E 30 CA             | 09 22 76                        | Well   | 2.4             | 5                      | 545            | 1.3                   | .03          | .01                    | 7.5                           | 441                                     | 32.6                                 | 96.6             | 637                           |
| 28         | 21N 17E 30 DBA            | 09 22 76                        | Well   | 163.5           | 57.5                   | 94.5           | 4.1                   | .03          | <.01                   | 7.9                           | 390                                     |                                      | 13               | 511                           |
| 29         | 21N 19E 13                | 09 23 76                        | Well   | 83              | 14.9                   | 1630           | 3.9                   | .13          | .05                    | 7.6                           | 1075                                    |                                      | 325              | 2318                          |
| 33         | 19N 14E 06 DDA            | 11 16 71                        | Well   | 161             | 125                    | 107            | 4.7                   | .02          |                        | 16.0                          | 240                                     |                                      | 18.3             | 879                           |
| 38         | 19N 14E 26 CCCB           | 09 21 76                        | Well   | 424             | 292                    | 282            | 9.1                   | .04          | .27                    | 12.7                          | 506                                     |                                      | 102              | 2236                          |
| 38         | 19N 14E 33 B8B8           | 09 21 76                        | Well   | 394             | 177                    | 175            | 7.7                   | .08          | .01                    | 12.8                          | 407                                     |                                      | 104              | 1487                          |
| 39         | 19N 14E 33 CBD            | 09 21 76                        | Well   | 66              | 29                     | 15.2           | 1.5                   | .14          | <.01                   | 13.3                          | 334                                     |                                      | 8.4              | 33.2                          |
| 81         | 15N 18E 09 B8A            | 03 29 67                        | Well   | 39              | 19                     | 60*            |                       |              |                        |                               | 281                                     |                                      | 4                | 54                            |
| 82         | 16N 18E 08 CAD            | 04 05 67                        | Well   | 63              | 29                     | 60*            |                       | .44          |                        |                               | 403                                     |                                      | 4                | 38                            |
| 83         | 18N 17E 18 BDD            | 04 04 67                        | Well   | 8               | 4                      | 262*           |                       | .26          |                        |                               | 323                                     |                                      | 12               | 316                           |
| 84         | 18N 17E 18 BAD            | 04 04 67                        | Well   |                 |                        | 812*           |                       | .24          |                        |                               | 872                                     |                                      | 23               | 910                           |
| 85         | 18N 17E 17 BCD            | 04 04 67                        | Well   | 8               | 4                      | 251*           |                       | .06          |                        |                               | 317                                     |                                      | 11               | 294                           |
| 86         | 18N 17E 21 ADD            | 03 29 67                        | Well   | 48              | 18                     | 117*           |                       |              |                        |                               | 311                                     |                                      | 8                | 176                           |
| 87         | 16N 17E 28 A8B            | 03 29 67                        | Well   | 4               |                        | 164*           |                       | .15          |                        |                               | 384                                     |                                      | 6                | 41                            |
| 89         | 15N 17E 32 R8D            | 03 29 67                        | Well   | 65              | 42                     | 39*            |                       |              |                        |                               | 238                                     |                                      | 14               | 192                           |
| 91         | 15N 16E 25 CDD            | 03 29 67                        | Well   | 28              | 15                     | 82*            |                       |              |                        |                               | 293                                     |                                      | 4                | 60                            |
| 92         | 15N 16E 34 ADD            | 03 29 67                        | Well   | 4               |                        | 159*           |                       |              |                        |                               | 335                                     |                                      | 4                | 51                            |
| 94         | 18N 14E 07 BDA            | 09 21 76                        | Well   | 164             | 258                    | 346            | 13.6                  | .11          | .13                    | 10.3                          | 383                                     |                                      | 49               | 1809                          |
| 115        | 17N 24E 17 CC             | 07 10 63                        | Well   | 810             | 210                    | 2200           | 40                    |              |                        |                               | 159                                     |                                      | 3000             | 3200                          |
| 118        | 16N 26E 08 AD             | 03 16 46                        | Well   | 44              | 28                     | 320*           |                       |              |                        |                               | 230                                     | 24                                   | 58               | 580                           |
| 120        | 16N 27E 26 B8             | 03 06 46                        | Well   |                 |                        | 450*           |                       |              |                        |                               | 450                                     | 12                                   | 59               | 480                           |
| 123        | 18N 28E 28 CC             | 04 28                           | Well   |                 |                        | 350*           |                       |              |                        |                               | 415                                     |                                      | 35               | 350                           |
| 126        | 15N 29E 09 AC             | 01 07 26                        | Well   |                 |                        | 470*           |                       |              |                        |                               | 810                                     | 53                                   | 28               | 240                           |
| 127        | 15N 29E 11 DD             | 10 14 68                        | Well   | 620             | 210                    | 2100*          |                       |              |                        |                               | 380                                     |                                      | 2800             | 2600                          |
| 128        | 15N 29E 14 AD             | 12 04 68                        | Well   | 2               | 1                      | 500            | 2                     |              |                        |                               | 598                                     |                                      | 24               | 300                           |
| 180        | 17N 14E 06                | 04 09 78                        | Well   | 216             | 126                    | 1800           | 3.8                   | .06          | .01                    | 9.6                           | 1003                                    |                                      | 128              | 3767                          |
| 181        | 17N 14E 06                | 09 21 76                        | Well   | 171.5           | 87                     | 780            | 8.0                   | .12          | .68                    | 13.8                          | 888                                     |                                      | 108              | 1672                          |
| 182        | 17N 18E 19                | 06 17 73                        | Spring | 114             | 39                     | 3.8            | 1.4                   |              |                        | <.1                           | 127                                     |                                      | 4                | 319                           |
| 183        | 19N 14E 33 B8CD           | 04 09 78                        | Well   | 458             | 388                    | 164            | 14                    | .12          | .03                    | 12.3                          | 393                                     |                                      | 26               | 2699                          |
| 164        | 20N 16E 24                | 09 22 78                        | Well   | 115             | 150                    | 535            | 3.5                   | .04          | <.01                   | 11.1                          | 539                                     |                                      | 1.7              | 1536                          |
| 185        | 20N 16E 24 BD             | 09 22 78                        | Spring | 426             | 450                    | 1040           | 6.8                   | .08          | .02                    | 11.2                          | 316                                     |                                      | 12.2             | 4532                          |
| 186        | 17N 18E 01 ACC            | 04 03 67                        | Well   | 126             | 71                     | 520*           |                       | 1.96         |                        |                               | 500                                     |                                      | 43               | 1200                          |
| 187        | 18N 16E 01 ADB            | 04 04 67                        | Well   |                 |                        | 437*           |                       |              |                        |                               | 552                                     |                                      | 7                | 405                           |
| 188        | 18N 16E 23 CBD            | 04 04 67                        | Well   | 171             | 171                    | 403*           |                       | 4.36         |                        |                               | 772                                     |                                      | 18               | 1285                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium



1" x 2" Sheet

## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 21                 | .197           | .4              | 7.89      | 8                    | 5199  | 4553                           | 1630                                      | 454   | 9.1                           | M8MG                 | 120                    |                 | yes                           | 76M1811       |
| 22                 | .052           | 2.6             | 7.81      | 12                   | 4889  | 2840                           | 26  | 446   | 94.5                          | M8MG                 | 360                    | 211JDRV         | yes                           | 76M1254       |
| 23                 | .113           | 1.6             | 8.36      | 17                   | 3483  | 2409                           | 20  | 1020  | 87.4                          | M8MG                 |                        |                 | yes                           | 76M1255       |
| 24                 | 19.99          | .2              | 7.62      | 14                   | 2565  | 1892                           | 1090                                      | 370   | 2.8                           | M8MG                 |                        |                 | yes                           | 76M1253       |
| 25                 | 15.814         | 3.4             | 7.71      | 10.5                 | 2582  | 1864                           | 1180                                      | 505   | 2.5                           | M8MG                 | 20                     |                 | yes                           | 76M1250       |
| 28                 | 26.206         | 8               | 7.56      | 12                   | 7652  | 7723                           | 4230                                      | 366   | 5.9                           | M8MG                 | 23                     |                 | yes                           | 76M1249       |
| 27                 | .029           | 5               | 8.96      | 13                   | 2348  | 1541                           | 8   | 418   | 83.7                          | M8MG                 | 300                    |                 | yes                           | 76M1252       |
| 28                 | .452           | 8               | 7.51      | 17                   | 1463  | 1045                           | 645                                       | 320   | 1.6                           | M8MG                 | 90                     |                 | yes                           | 76M1251       |
| 29                 | .260           | 1.9             | 7.37      | 13                   | 6547  | 4894                           | 219                                       | 881   | 48.0                          | M8MG                 |                        | 211JDRV         | yes                           | 76M1256       |
| 33                 | 4.744          | 5               | 8.04      | 10                   | 1780  | 1434                           | 918                                       | 197   | 1.5                           | USGS                 | 120                    | 211EGLE         | no                            | 72M0001       |
| 38                 | 9.714          | .2              | 7.52      | 15                   | 4104  | 3618                           | 2260                                      | 415   | 2.8                           | M8MG                 | 27                     |                 | yes                           | 76M1246       |
| 38                 | 15.25          | 5               | 6.91      | 9                    | 3038  | 2584                           | 1710                                      | 334   | 1.8                           | M8MG                 | 33                     |                 | yes                           | 76M1245       |
| 39                 | .746           | .7              | 7.48      | 11                   | 575   | 331                            | 284                                       | 274   | 0.4                           | M8MG                 | 35                     |                 | yes                           | 76M1244       |
| 81                 |                | .6              |           | 10                   |   |                                | 173                                       | 230   |                               | USGS                 | 614                    | 217KOTN         | no                            | 64M0019       |
| 82                 |                | .9              | 8.3       |                      |   |                                | 275                                       | 331   |                               | USGS                 | 1100                   | 217KOTN         | no                            | 64M0009       |
| 83                 |                | 1.4             |           | 16.8                 |   |                                | 36  | 265   |                               | USGS                 | 1240                   | 217KOTN         | no                            | 64M0006       |
| 84                 |                | 1.4             |           |                      |   |                                |   | 715   |                               | USGS                 | 311                    | 211CLRO         | no                            | 64M0011       |
| 85                 |                | 1.5             |           |                      |   |                                | 36  | 260   |                               | USGS                 | 1100                   | 217KOTN         | no                            | 64M0016       |
| 86                 |                | 1.3             | 11.1      |                      |   |                                | 194                                       | 255   |                               | USGS                 | 290                    | 217KOTN         | no                            | 64M0018       |
| 87                 |                | 2.4             | 9.4       |                      |   |                                | 10  | 315   |                               | USGS                 | 850                    | 217KOTN         | no                            | 64M0024       |
| 89                 |                | .8              | 8.3       |                      |   |                                | 337                                       | 195   |                               | USGS                 | 42                     | 211CLRO         | no                            | 64M0015       |
| 91                 |                | 1.2             | 14.4      |                      |   |                                | 133                                       | 240   |                               | USGS                 | 1596                   | 217KOTN         | no                            | 64M0022       |
| 92                 |                | 1.2             | 18.1      |                      |   |                                | 10  | 275   |                               | USGS                 | 1470                   | 217KOTN         | no                            | 64M0023       |
| 94                 | .054           | .6              | 7.22      | 15                   | 3475  | 2839                           | 1470                                      | 314   | 3.9                           | M8MG                 | 28                     | 211CLRO         | yes                           | 76M1240       |
| 115                |                | 7.3             |           |                      |   | 9538                           | 2290                                      | 130   | 17.8                          | Unknown              |                        | 337MSNC         | no                            | 63M0009       |
| 118                |                |                 |           |                      |   |                                | 225                                       | 229   |                               | Unknown              |                        | 320TSLP         | no                            | 48M0018       |
| 120                |                |                 |           |                      |   |                                |   | 389   |                               | Unknown              |                        | 217KOTN         | no                            | 46M0014       |
| 123                |                |                 |           |                      |   |                                |   | 340   |                               | Unknown              |                        | 217KOTN         | no                            | 28M0001       |
| 126                |                |                 |           |                      |   |                                |   | 753   |                               | Unknown              |                        | 217KOTN         | no                            | 26M0001       |
| 127                |                | 8.9             |           |                      |   |                                | 2410                                      | 312   |                               | Unknown              |                        | 337MSNC         | no                            | 68M0006       |
| 128                |                | 8.2             |           |                      |   | 1124                           | 9   | 490   | 72.1                          | Unknown              |                        | 217LKOT         | no                            | 68M0003       |
| 180                | 1.509          | 2.0             | 7.96      | 5                    | 7978  | 6550                           | 1070                                      | 823   | 24.0                          | M8MG                 | 50                     |                 | yes                           | 76M0236       |
| 181                | 4.179          | 5.2             | 7.40      | 15                   | 4046  | 3187                           | 788                                       | 564   | 12.1                          | M8MG                 | 63                     |                 | yes                           | 76M1243       |
| 182                | .407           | 1.4             | 7.92      | 20                   | 1754  | 545                            | 442                                       | 104   | .1                            | M8MG                 |                        | 331MOSN         | no                            | 73M0046       |
| 183                | 1.649          | .2              | 7.74      | 12                   | 4106  | 3967                           | 2740                                      | 323   | 1.4                           | M8MG                 | 33                     |                 | yes                           | 76M0237       |
| 184                | 8.213          | .8              | 7.55      | 12                   | 3518  | 2625                           | 905                                       | 442   | 7.7                           | M8MG                 | 40                     |                 | yes                           | 76M1238       |
| 185                | 34.564         | 6               | 7.70      | 16                   | 7670  | 6669                           | 2920                                      | 259   | 8.4                           | M8MG                 |                        |                 | yes                           | 76M1237       |
| 186                |                | 1.0             | 8.3       |                      |   |                                | 607                                       | 410   |                               | USGS                 | 695                    | 211EGLE         | no                            | 64M0014       |
| 187                |                |                 |           |                      |   |                                |   | 453   |                               | USGS                 | 174                    | 211EGLE         | no                            | 64M0013       |
| 188                |                |                 |           |                      |   |                                | 1130                                      | 633   |                               | USGS                 | 300                    | 211EGLE         | no                            | 64M0007       |

## LEWISTOWN

## Chemical Analyses

| Map<br>ref.<br>no. | Location |     |        | Collection<br>date |    |    | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potash-<br>ium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|----------|-----|--------|--------------------|----|----|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 189                | 18N      | 17E | 21 ABC | 04                 | 04 | 67 | Well   | 43              | 14                     | 217*           |                       | .64          |                        |                               | 409                                     |                                      | 6                | 279                           |
| 190                | 18N      | 16E | 12 ACA | 04                 | 03 | 67 | Well   | 16              | 5                      | 380*           |                       | .29          |                        |                               | 226                                     |                                      | 22               | 625                           |
| 191                | 18N      | 19E | 08 BCD | 04                 | 03 | 67 | Well   | 24              | 14                     | 193*           |                       | .08          |                        |                               | 366                                     |                                      | 12               | 208                           |
| 192                | 18N      | 20E | 34 BC  | 04                 | 10 | 72 | Well   | 71              | 1.6                    | 219            | 5.4                   | 4.09         | .04                    | 103.0                         | 487                                     | 14                                   | 18.8             | 60                            |
| 193                | 18N      | 20E | 34 BC  | 04                 | 29 | 72 | Well   | 706             | 161                    | 89             | 15.5                  | .22          | 41                     | 17.4                          | 146                                     |                                      | 13.2             | 2405                          |
| 194                | 19N      | 16E | 11 BBB | 11                 | 16 | 71 | Well   | 386             | 422                    | 679            | 10.2                  | .05          | .01                    | 16.0                          | 276                                     |                                      | 219              | 3505                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

1° x 2° Sheet (Con't.)

## of Selected Waters (Con't.)

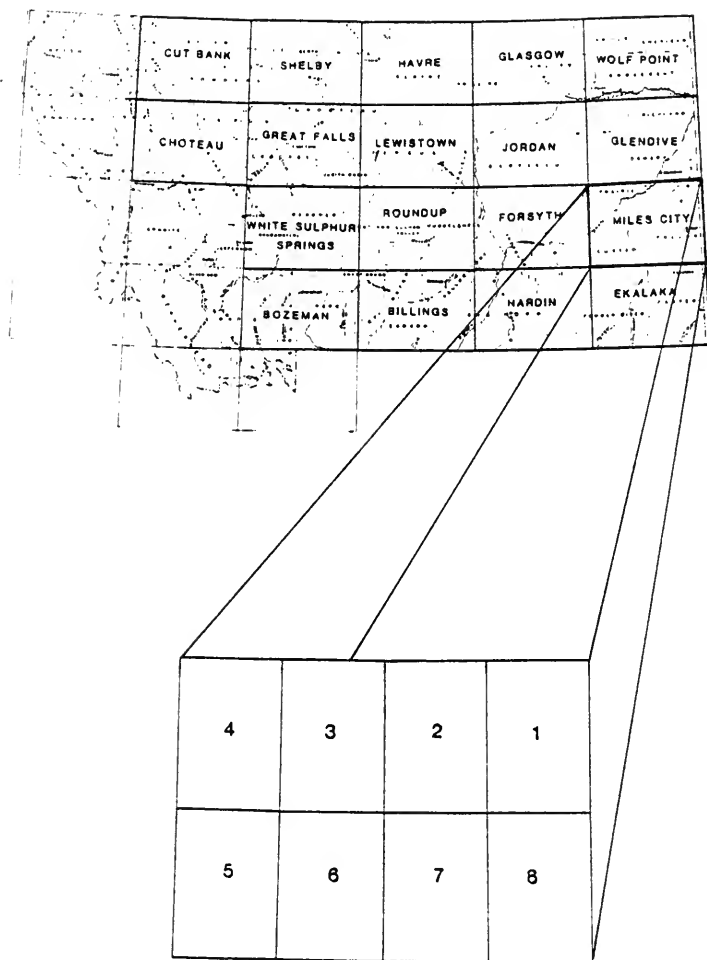
| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 189                |                | 1.0             |           |                      |   |                                | 163                                       | 335   |                               | USGS                 |                        | 211EGLE         | no                            | 64M0008       |
| 190                |                | .7              |           |                      |   |                                | 61  | 185   |                               | USGS                 | 376                    | 211EGLE         | no                            | 64M0010       |
| 191                |                | .6              |           | 12.8                 |   |                                | 117                                       | 300   |                               | USGS                 | 551                    | 211EGLE         | no                            | 64M0017       |
| 192                | 294            | 6.1             | 8.52      | 26.6                 | 1017  | 679                            | 24  | 446   | 19.4                          | USGS                 |                        | 217SCCR         | no                            | 72M0066       |
| 193                |                | 4.8             | 7.47      |                      | 3420  | 3464                           | 2410                                      | 120   | .8                            | USGS                 |                        | 331MDSN         | no                            | 72M0067       |
| 194                | 11.973         | 4               | 7.94      | 10.5                 | 5680  | 5386                           | 2720                                      | 226   | 5.7                           | USGS                 |                        | 211EGLE         | no                            | 72M0002       |

## LEWISTOWN 1" x 2" Sheet

## Trace Elements Analysis Sheet

| Map<br>ref. | Location<br>T R Sec Tract | Alt.<br>min<br>(mg/l) | Anti.<br>mg/l | Ar.<br>mg/l | Beryll.<br>(μg/l) | Baron<br>mg/l | Cadm.<br>mg/l | Chro.<br>mg/l | Copper<br>mg/l | Lead<br>mg/l | Lith.<br>mg/l | Mer.<br>μg/l | Nickel<br>mg/l | Phosphate<br>[Total<br>dissolved] | Selenium<br>μg/l | Stron-<br>Silver<br>mg/l | Tin<br>mg/l | Zinc<br>mg/l | Lab<br>number |         |
|-------------|---------------------------|-----------------------|---------------|-------------|-------------------|---------------|---------------|---------------|----------------|--------------|---------------|--------------|----------------|-----------------------------------|------------------|--------------------------|-------------|--------------|---------------|---------|
| 21          | 21N 22N 04E 07 BCDC       | < .05                 | < 2           | < 2.0       |                   | .73           |               | < .01         | .01            | .07          | .58           | < 3          | < .04          | 178                               | < 2.0            | 8.30                     | 1.61        | 21           | 76M1511       |         |
| 22          | 22N 20E 02                | < .05                 | < 2           | 2.3         |                   | 2.9           |               | < .01         | < .01          | < .05        | .20           | .3           | .01            | .095                              | < 2.0            | 4.0                      | .07         | < .01        | 76M1254       |         |
| 23          | 22N 20E 22 B              | < .05                 | < 2           | < 2.0       |                   | 4.0           |               | < .01         | < .01          | < .05        | .21           | < 3          | .03            | .095                              | < 2.0            | 38                       | .05         | .01          | 76M1255       |         |
| 24          | 22N 17E 35 DC             | .06                   | < 2           | < 2.0       |                   | 40            |               | < .01         | .02            | .08          | .16           | < 3          | .03            | .095                              | 29.4             | 2.15                     | 18          | 22           | 76M1253       |         |
| 25          | 21N 16E 26 CA             | .08                   | .2            | < 2.0       |                   | 68            |               | < .01         | .02            | .08          | .16           | < 3          | .03            | .036                              | 21.3             | 2.36                     | 55          | 05           | 76M1250       |         |
| 26          | 20N 15E 10 AC             | .14                   | 48            | < 2.0       |                   | 68            |               | .02           | .04            | .22          | .21           | < 3          | .10            | 188                               | 65.8             | 7.8                      | 1.08        | .02          | 76M1249       |         |
| 27          | 21N 17E 30 CA             | .05                   | < 2           | < 2.0       |                   | 49            |               | < .01         | < .01          | < .05        | .09           | < 3          | .01            | .095                              | < 2.0            | .15                      | .07         | < .01        | 76M1252       |         |
| 28          | 21N 17E 30 DBA            | .08                   | .2            | < 2.0       |                   | 22            |               | < .01         | .01            | < .05        | .11           | < 3          | .03            | .088                              | < 2.0            | 2.18                     | .19         | .02          | 76M1251       |         |
| 29          | 21N 19E 13                | .07                   | < 2           | < 2.0       |                   | 2.8           |               | < .01         | .01            | < .05        | .76           | < 3          | .04            | .042                              | < 2.0            | 2.72                     | .08         | < .01        | 76M1256       |         |
| 36          | 19N 14E 26 CCB            | < .05                 | < 2           | < 2.0       |                   | 83            |               | < .01         | .02            | .17          | .55           | < 3          | .06            | .078                              | 98.8             | 11.8                     | .58         | .06          | 76M1246       |         |
| 38          | 19N 14E 33 BCB            | .06                   | < 2           | < 2.0       |                   | .33           |               | .01           | .02            | .14          | .64           | < 3          | .05            | .055                              | 19.4             | 3.05                     | .42         | .04          | 76M1245       |         |
| 39          | 18N 14E 33 BCB            | .18                   | < 2           | < 2.0       |                   | .18           |               | < .01         | .01            | < .05        | .04           | < 3          | .02            | .186                              | 8.3              | .64                      | .13         | .02          | 76M1244       |         |
| 84          | 18N 14E 07 BDA            | < .05                 | < 2           | < 2.0       |                   | .83           |               | < .01         | .01            | .10          | .16           | < 3          | .05            | .170                              | 16.2             | 1.16                     | .64         | .12          | 76M1240       |         |
| 180         | 18N 14E 06                | < .05                 | .26           | < 2.0       | < 5               | 2.6           | .01           | < .01         | .03            | .08          | .14           | < 3          | .10            | .160                              | 7.3              | 1.05                     | .24         | .08          | 76M1236       |         |
| 181         | 17N 14E 06                | .06                   | < 2           | < 2.0       |                   | 2.8           |               | < .01         | .03            | .11          | .16           | < 3          | .06            | 1.043                             | 6.7              | 1.12                     | .34         | .02          | 76M1243       |         |
| 183         | 19N 14E 33 BCB            | .14                   | .34           | < 2.0       | < 5               | 6             | .013          | .02           | .02            | < .10        | .34           | < 3          | .07            | .013                              | 34               | 7.4                      | .46         | .07          | 76M1237       |         |
| 184         | 20N 16E 24                | < .05                 | < 2           | < 2.0       | < 5               | 1.0           | .01           | < .01         | .01            | < .05        | .38           | < 3          | .03            | .049                              | 7.1              | < .01                    | 2.87        | .26          | .03           | 76M1238 |
| 185         | 20N 16E 24 BD             | .05                   | .28           | < 2.0       | < 5               | .8            | .02           | .02           | .02            | .18          | .44           | < 3          | .07            | .049                              | 95               | .01                      | 8.7         | .71          | 1.96          | 76M1237 |

# LOCATION BASE MAP

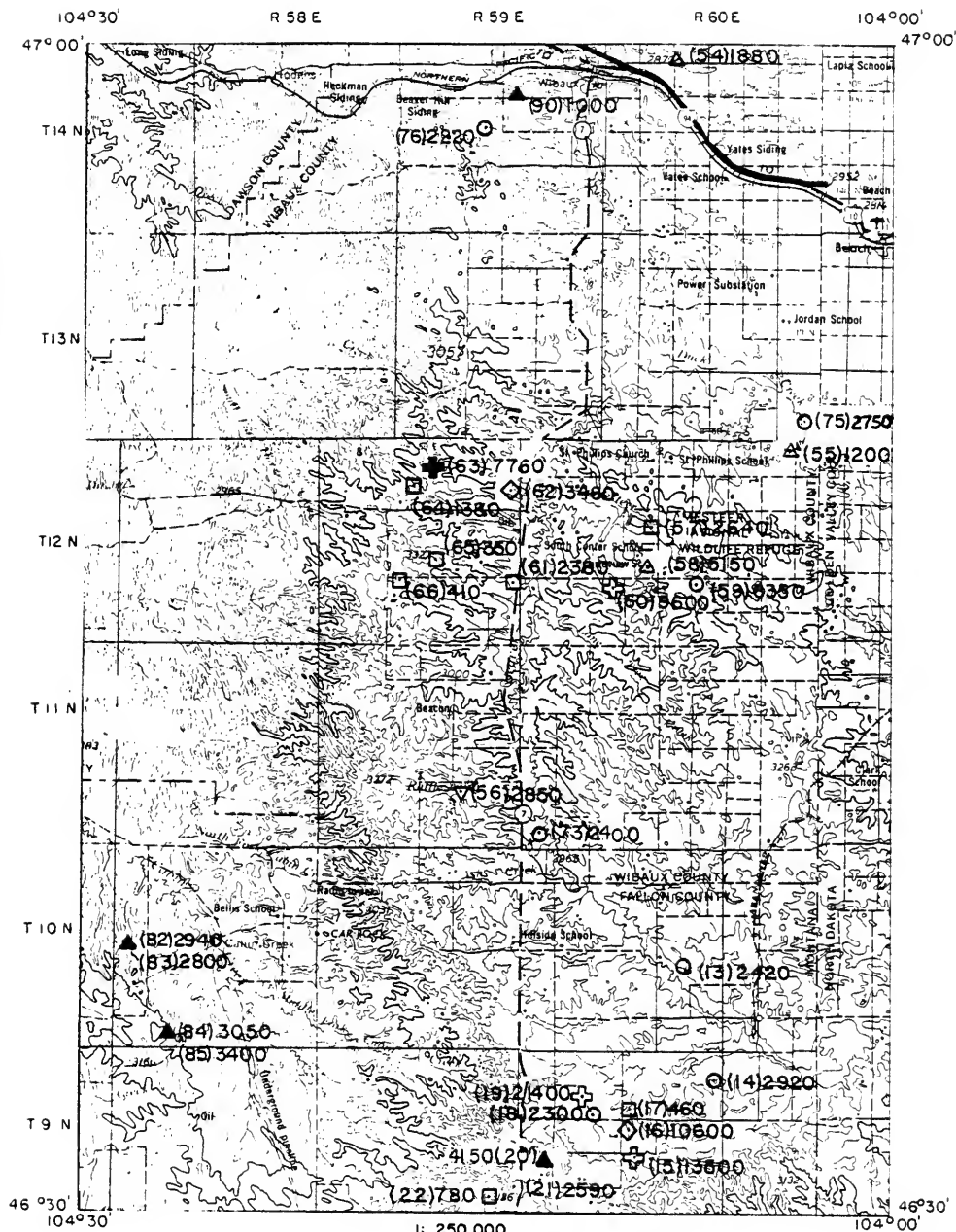


MILES CITY 1° x 2° SHEET

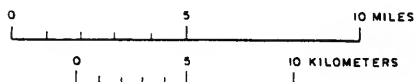


# SPECIFIC CONDUCTANCE SURVEY

MILES CITY 1



1: 250,000



CONTOUR INTERVAL 100 FT



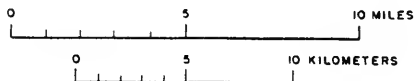


## MILES CITY 4

47°00'

1: 250,000

46°30'  
00'

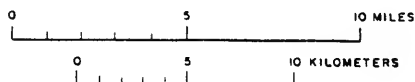
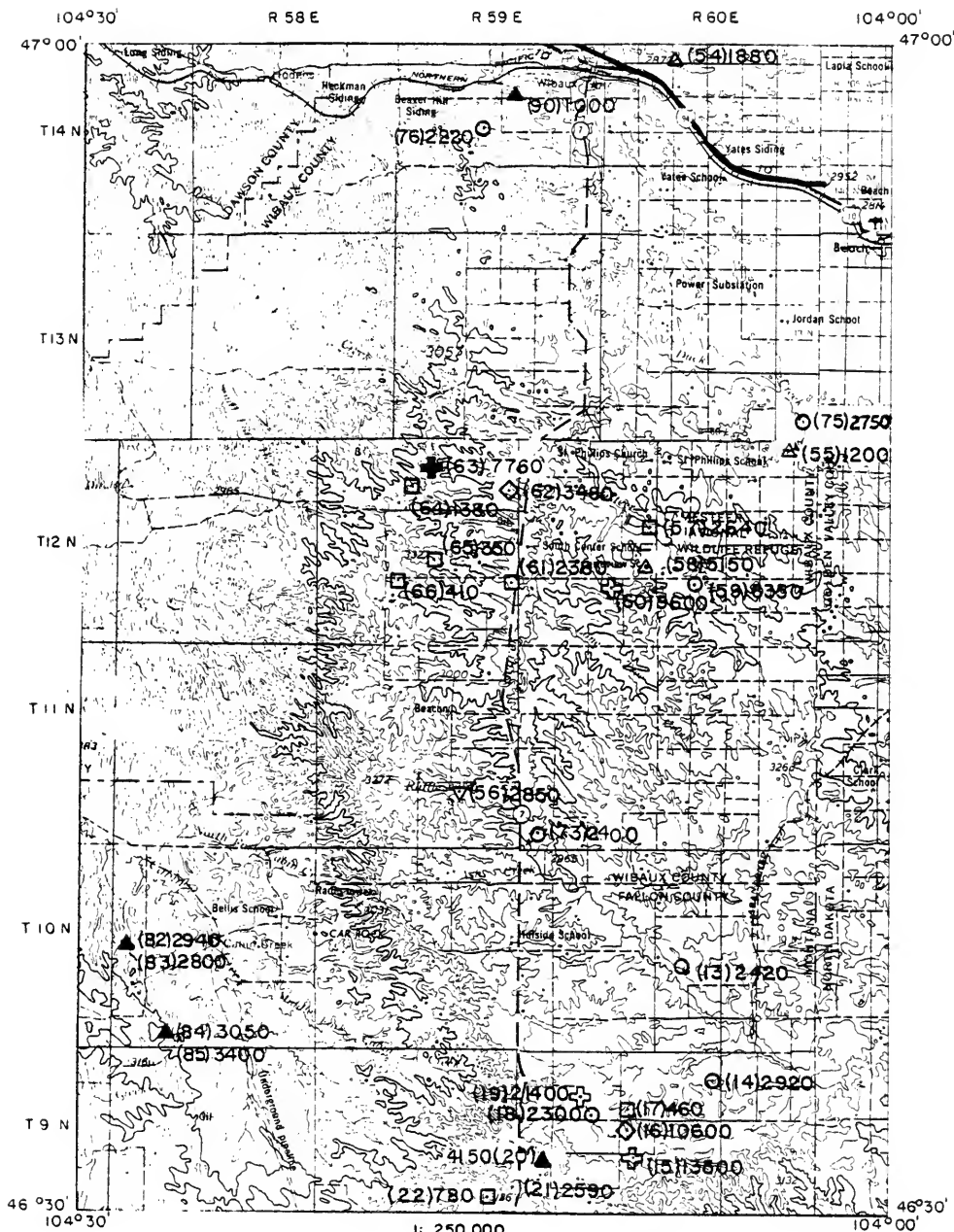


CONTOUR INTERVAL 100 FT



# SPECIFIC CONDUCTANCE SURVEY

MILES CITY 1



CONTOUR INTERVAL 100 FT



## MILES CITY 1

104°00'

47°00'



0 5 10 KILOMETERS

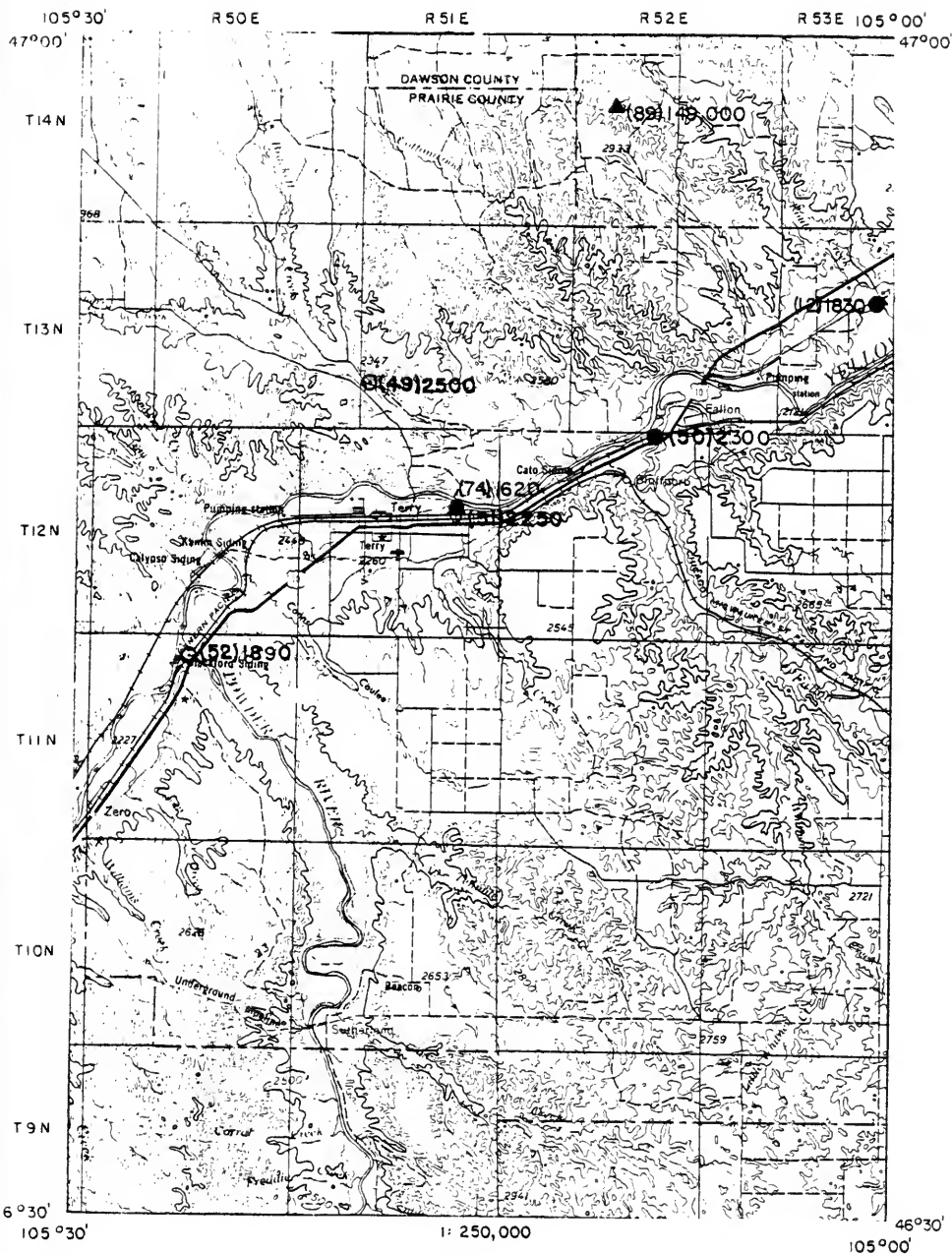
CONTOUR INTERVAL 100 FT

## MILES CITY 2



# SPECIFIC CONDUCTANCE SURVEY

MILES CITY 3



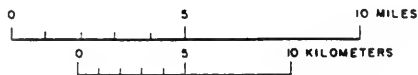
0 5 10 MILES

0 5 10 KILOMETERS

CONTOUR INTERVAL 100 FT

## MILES CITY 4

R49E 105°30'

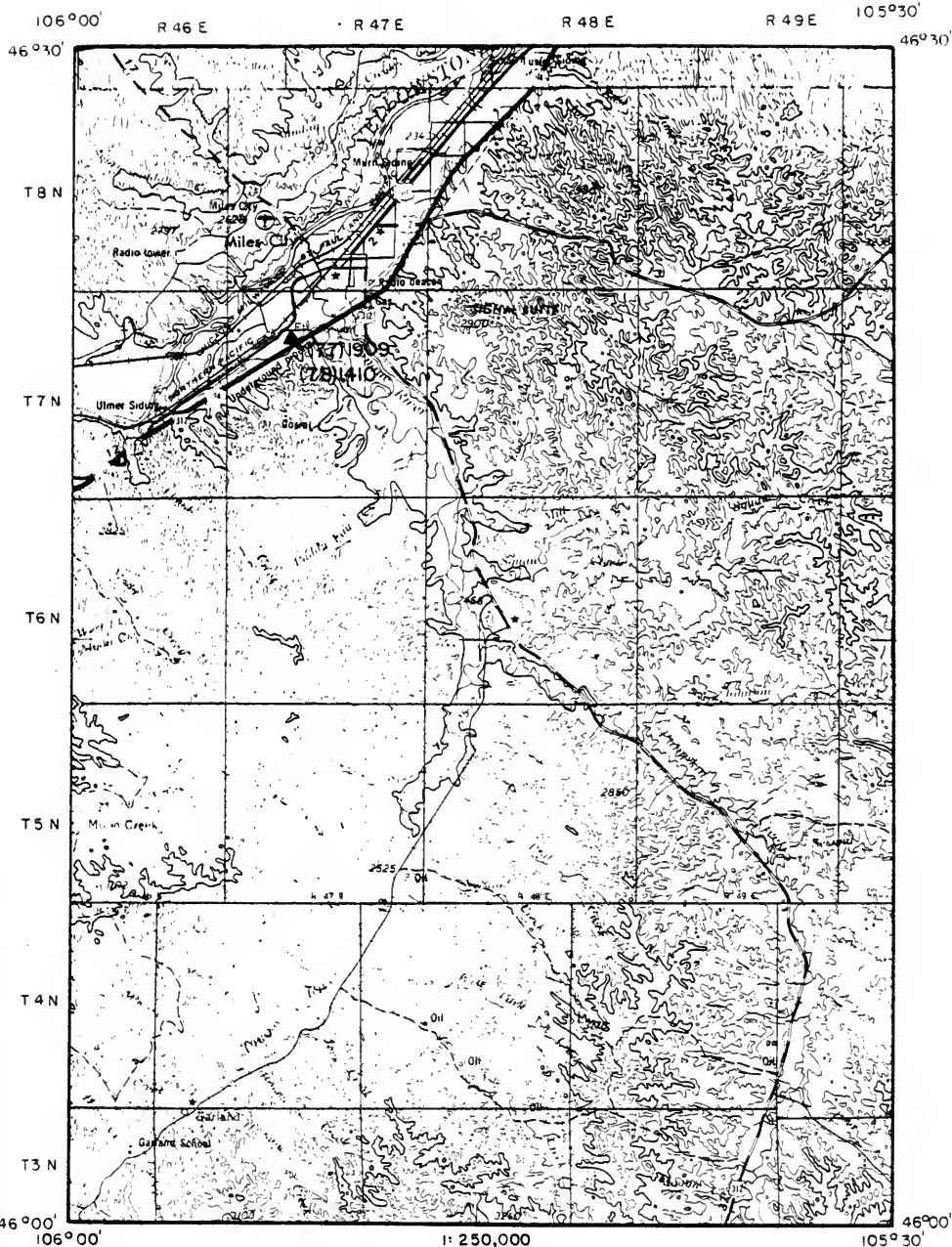


CONTOUR INTERVAL 100 FT



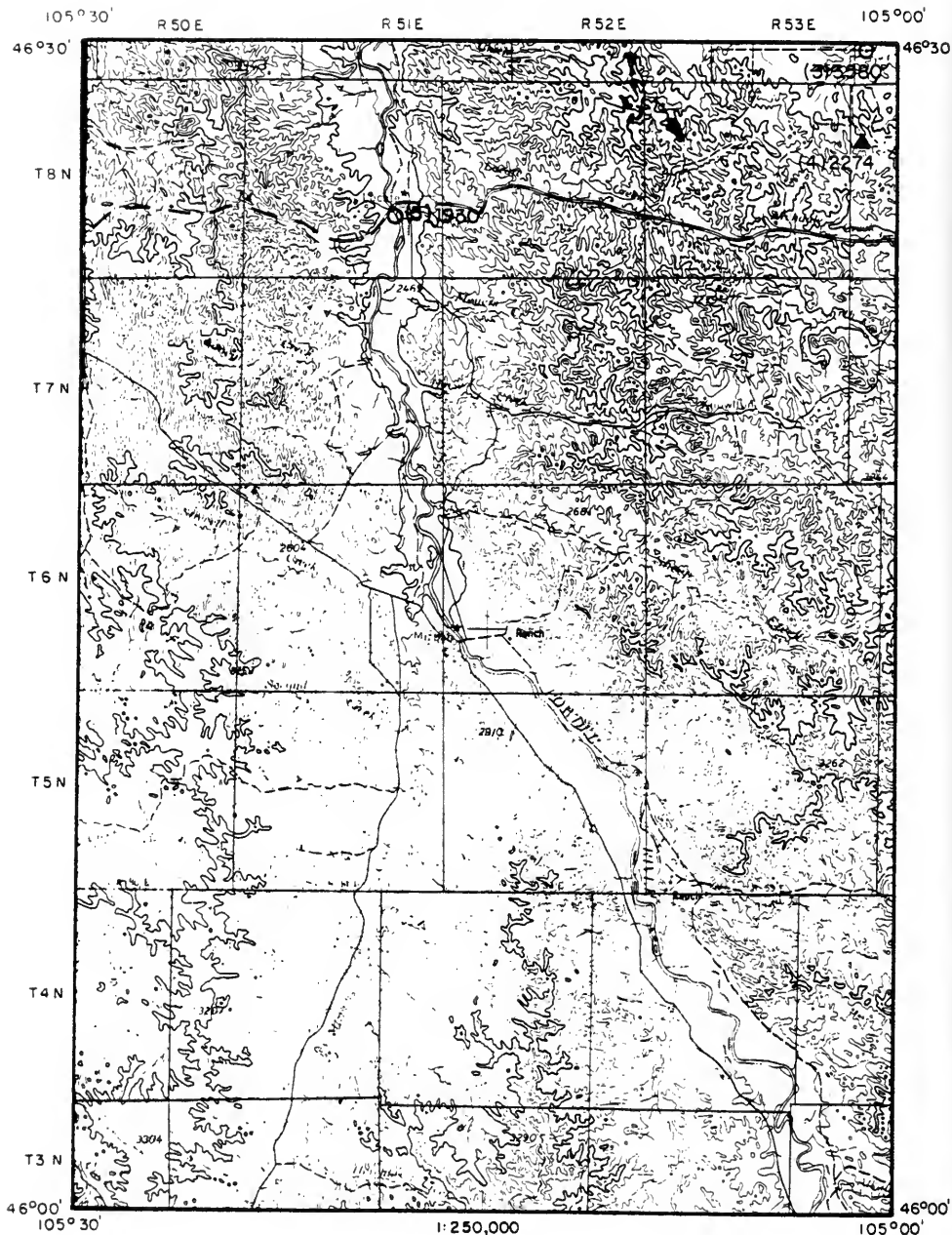
# SPECIFIC CONDUCTANCE SURVEY

MILES CITY 3



# SPECIFIC CONDUCTANCE SURVEY

MILES CITY 6



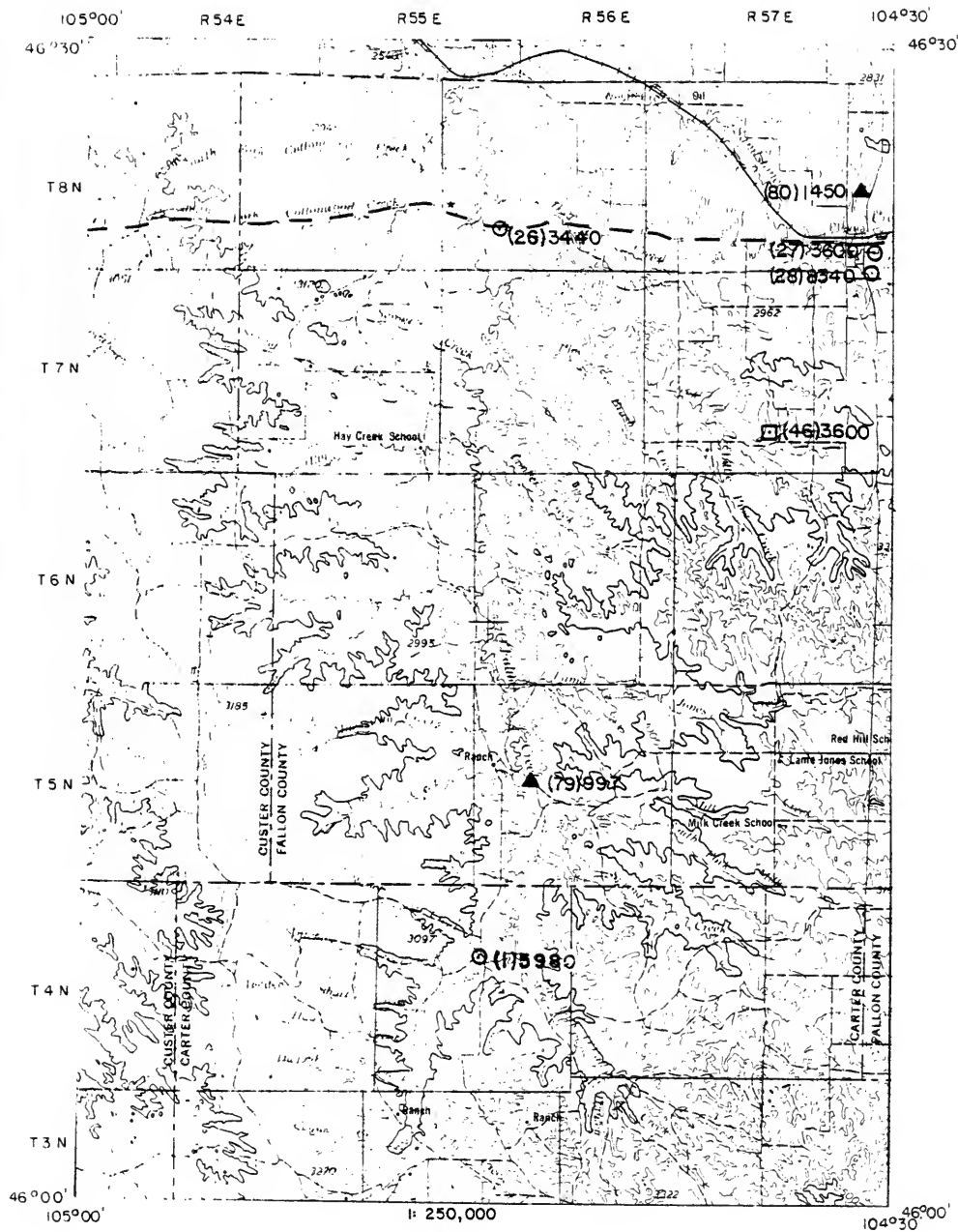
0 5 10 MILES

0 5 10 KILOMETERS

CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

MILES CITY 7



0 5 10 MILES

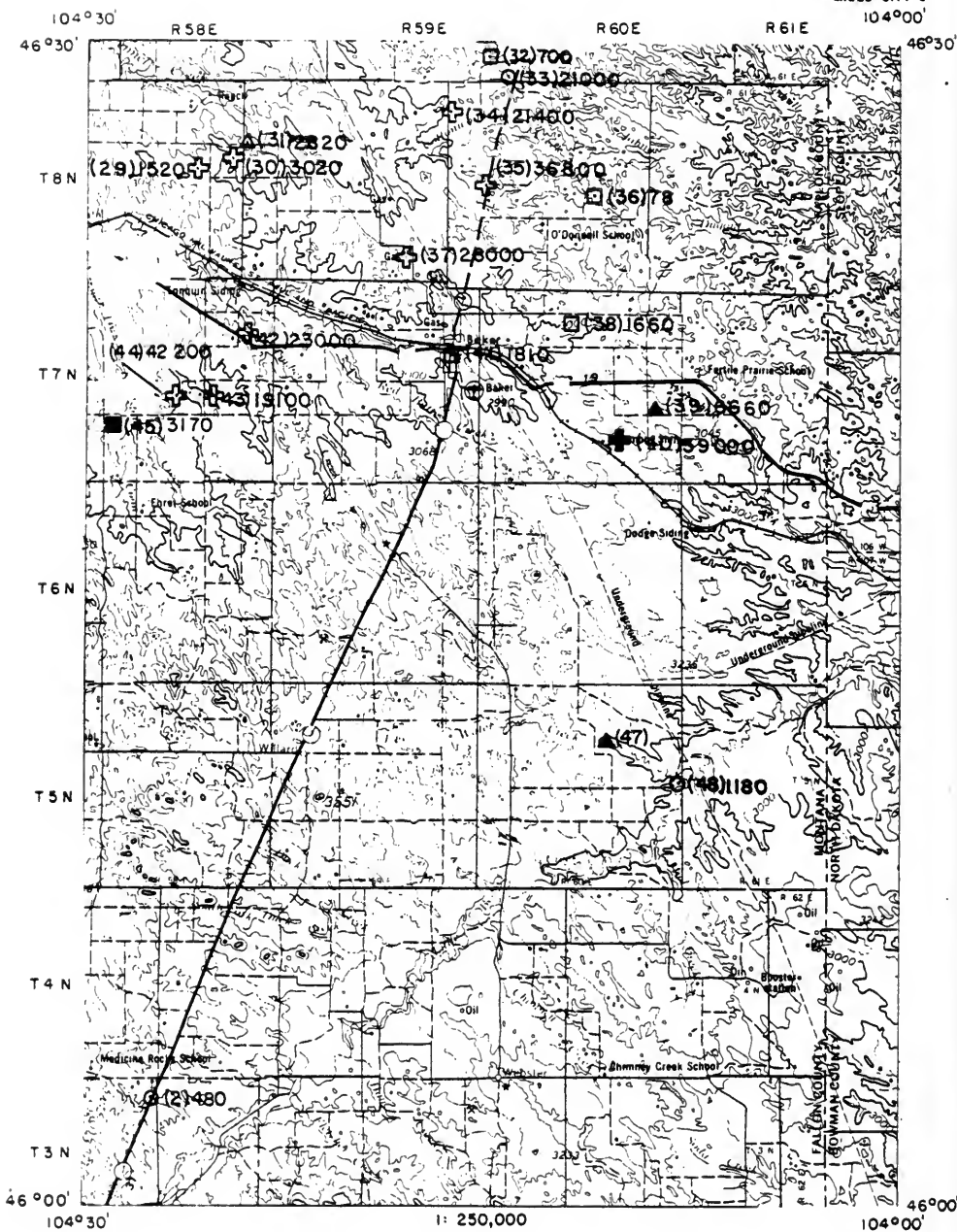
0 5 10 KILOMETERS

CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

MILES CITY 8

104°00'



CONTOUR INTERVAL 100 FT

# MILES CITY 1" x 2" Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref<br>no. | Field<br>number | County | Location<br>T R Sec Tract | Collection<br>date<br>Mo Yr | Flow or yield<br>Estimated<br>M=measured | Site description                              | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>elevation<br>(ft.) | Static<br>water<br>level<br>depth<br>(ft.) | Acquirer<br>code | Owner's name |
|-------------------|-----------------|--------|---------------------------|-----------------------------|--|---|--------------------------------------|----------------------|-----------------|--------------------------------|--|------------------|--------------|
| 1                 | WQB7            | Custer | 04N 58E 15 B 8B           | 10 15 76 Creek              | 1 cfs (IE)                               | O'Fallon Creek                                | 5980                                 | no                   | no              |                                |  |                  |              |
| 2                 | WQB2            | Custer | 04N 58E 01 DAC            | 10 15 76 Creek              | no flow                                  | 0.1 mile N of Medicine Rocks at highway       | 480                                  | no                   | no              |                                |  |                  |              |
| 3                 | WQB4            | Custer | 04N 53E 35 B 8A           | 11 17 76 Creek              | 0.1 cfs (IE)                             | Whitney Creek                                 | 2580                                 | no                   | no              |                                |  |                  |              |
| 4                 | WQB5            | Custer | 04N 54E 07 CAC            | 11 17 76 Well               |  | Pumped by windmill                            | 2274                                 | yes                  | yes             |                                |  |                  |              |
| 5                 | WQB3            | Custer | 04N 51E 28 A 8B           | 11 17 76 River              | 290 cfs (IE)                             | Powder River                                  | 1300                                 | no                   | no              |                                |  |                  |              |
| 6                 | WQB6            | Custer | 04N 48E 05 DAO            | 11 18 76 Canal              | 0.1 cfs (IE)                             | Irrigation canal                              | 3900                                 | no                   | no              |                                |  |                  |              |
| 7                 | WQB2            | Custer | 04N 58E 01 DAC            | 11 17 76 Canal              | 0.1 cfs (IE)                             | Irrigation canal at highway                   | 1878                                 | yes                  | yes             |                                |  |                  |              |
| 8                 | WQB9            | Dewon  | 14N 58E 21 C 20           | 10 20 68 Well               | 5 cfs (IE)                               | 4 miles W of Upper Maguire Reservoir          | 25860                                | yes                  | yes             |                                |  |                  |              |
| 9                 | WQB10           | Dewon  | 14N 54E 14                | 09 07 75 Creek              | 3 cfs (IE)                               | Clear Creek                                   | 1440                                 | no                   | no              |                                |  |                  |              |
| 10                | WQB16           | Dewon  | 14N 54E 31                | 09 07 75 Creek              | 2 cfs (IE)                               | Cracker Box Creek                             | 870                                  | no                   | no              |                                |  |                  |              |
| 11                | WQB15           | Dewon  | 13N 53E 14 C              | 09 07 75 Canal              | 2 cfs (IE)                               | Bad Route Irrigation return, lined with salts | 2360                                 | yes                  | yes             |                                |  |                  |              |
| 12                | WQB18           | Dewon  | 13N 53E 19 A              | 09 07 75 Creek              | 5 cfs (IE)                               | Bad Route Creek, lined with alkali            | 1830                                 | no                   | no              |                                |  |                  |              |
| 13                | WQB19           | Fallon | 10N 60E 23 AD             | 10 11 75 Creek              | 3 cfs (IE)                               | Black Creek, lined with alkali                | 2420                                 | no                   | no              |                                |  |                  |              |
| 14                | WQB18           | Fallon | 08N 60E 01 CC             | 10 11 75 Creek              | 2 cfs (IE)                               | Black Creek, lined with alkali                | 2920                                 | no                   | no              |                                |  |                  |              |
| 15                | WQB13           | Fallon | 08N 60E 22 BA             | 10 11 75 Sheep              |  | Park of Beaver Creek                          | 13500                                | no                   | no              |                                |  |                  |              |
| 16                | WQB13           | Fallon | 08N 60E 22 BA             | 10 11 75 Sheep              |  | In Coulee                                     | 13500                                | no                   | no              |                                |  |                  |              |
| 17                | WQB14           | Fallon | 08N 60E 15 BC             | 10 11 75 Spring             |  | Stock tank                                    | 10600                                | no                   | no              |                                |  |                  |              |
| 18                | WQB15           | Fallon | 08N 60E 10 CC             | 10 11 75 Reservoir          |  | Salt below dam                                | 480                                  | no                   | no              |                                |  |                  |              |
| 19                | WQB19           | Fallon | 08N 60E 09 CC             | 10 11 75 Creek              | > 1 cfs                                  | Park of Beaver Creek                          | 2300                                 | no                   | no              |                                |  |                  |              |
| 20                | WQB17           | Fallon | 08N 60E 08 AD             | 10 11 75 Sheep              |  | In Coulee                                     | 21400                                | no                   | no              |                                |  |                  |              |
| 21                | WQB12           | Fallon | 08N 60E 19 AA             | 10 11 75 Well               |  |   | 4100                                 | yes                  | yes             |                                |  |                  | Boydell, Ben |
| 22                | WQB10           | Fallon | 08N 58E 26 AA             | 10 11 75 Reservoir          |  | Shallow and muddy                             | 2590                                 | no                   | no              |                                |  |                  |              |
| 23                | WQB9            | Fallon | 08N 58E 25 BA             | 10 11 75 Reservoir          |  | 10 acre reservoir                             | 780                                  | no                   | no              |                                |  |                  |              |
| 24                | WQB11           | Fallon | 08N 57E 25 BA             | 10 11 75 Sheep              |  | Boggy and full of cattails, area once farmed  | 2820                                 | no                   | no              |                                |  |                  |              |
| 25                | WQB21           | Fallon | 08N 56E 11 CC             | 10 12 75 Well               | > 1 cfs (IE)                             | 0.5 mile N of 5 acre seep                     | 2380                                 | no                   | no              |                                |  |                  |              |
| 26                | WQB35           | Fallon | 08N 56E 04 DD             | 10 12 75 Creek              |  | Pennel Creek                                  | 3460                                 | no                   | no              |                                |  |                  |              |
| 27                | WQB27           | Fallon | 08N 56E 29 DB             | 10 14 76 Creek              | 1 cfs (IE)                               | O'Fallon Creek                                | 3440                                 | no                   | no              |                                |  |                  |              |
| 28                | WQB28           | Fallon | 08N 56E 31 A              | 10 13 76 Creek              | 0.5 cfs (IE)                             | Sandstone Creek                               | 1850                                 | no                   | no              |                                |  |                  |              |
| 29                | WQB28           | Fallon | 08N 56E 31 DB             | 10 13 75 Creek              | 50 gpm (IE)                              | South Fork, Sandstone Creek                   | 8340                                 | no                   | no              |                                |  |                  |              |
| 30                | WQB26           | Fallon | 08N 56E 14 DB             | 10 13 75 Sheep              | 10 gpm (IE)                              | 17 acres                                      | 1520                                 | no                   | no              |                                |  |                  |              |
| 31                | WQB25           | Fallon | 08N 56E 13 A              | 10 13 75 Sheep              |  | Low, boggy area                               | 3020                                 | no                   | no              |                                |  |                  |              |

MILES CITY 1' x 2' Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no. | Field<br>number | County  | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>E = estimated<br>M = measured | Site description                                | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. ± | Static<br>water<br>level<br>depth<br>ft. ± | Well<br>code | Acquirer<br>code | Owner's name |
|-------------------|-----------------|---------|---------------------------|---------------------------------|--------|--|---|--------------------------------------|----------------------|-----------------|-------------------|--|--------------|------------------|--------------|
| 31                | W0824           | Fallon  | 08N 59E 07 CCC            | 10 13 75 Well                   |        |  | Stock use                                       | 2920                                 | no                   | no              |                   |  |              |                  |              |
| 32                | W0820           | Fallon  | 08N 59E 36 AD             | 10 11 75 Reservoir              |        |  | On Panel Creek                                  | 1000                                 | no                   | no              |                   |  |              |                  |              |
| 33                | W0806           | Fallon  | 08N 59E 36 CD             | 10 11 75 Creek                  |        | 25 gpm (E)                                     | Source of Panel Creek, surrounded by rangeland  | 21000                                | no                   | no              |                   |  |              |                  |              |
| 34                | W0806           | Fallon  | 08N 59E 36 CD             | 10 11 75 Well                   |        |  | 150 feet from creek, in recently eroded         | 21400                                | no                   | no              |                   |  |              |                  |              |
| 35                | W0806           | Fallon  | 08N 60E 20 BBB            | 10 11 75 Well                   |        |  | Drain to the E                                  | 36800                                | no                   | no              |                   |  |              |                  |              |
| 36                | W0805           | Fallon  | 08N 60E 23 BD             | 10 11 75 Reservoir              |        |  | Small reservoir, wheat fields 0.5 mile to the N | 780                                  | no                   | no              |                   |  |              |                  |              |
| 37                | W0823           | Fallon  | 08N 59E 35 A              | 10 13 75 Well                   |        |  | NW of Baker, less than 1 acre in size           | 28000                                | no                   | no              |                   |  |              |                  |              |
| 38                | W0804           | Fallon  | 07N 60E 04 DC             | 10 11 75 Reservoir              |        |  | Small reservoir W of an oil rig                 | 1660                                 | no                   | no              |                   |  |              |                  |              |
| 39                | W0802           | Fallon  | 07N 60E 24 CC             | 10 10 75 Well                   |        |  | Located in a step area                          | 6660                                 | yes                  | yes             |                   |  |              |                  |              |
| 40                | W0801           | Fallon  | 07N 60E 26 BD             | 10 10 75 Well                   |        |  | Low area, pond above                            | 30000                                | yes                  | yes             |                   |  |              |                  |              |
| 41                | W0803           | Fallon  | 07N 59E 13 BD             | 10 10 75 Reservoir              |        |  | Baker Lake Reservoir                            | 1810                                 | no                   | no              |                   |  |              |                  |              |
| 42                | W0803           | Fallon  | 07N 59E 13 CC             | 10 10 75 Well                   |        |  | Source of Baker Creek                           | 23000                                | no                   | no              |                   |  |              |                  |              |
| 43                | W0833           | Fallon  | 07N 59E 23 BC             | 10 13 75 Well                   |        |  | Low area surrounded by rolling hills            | 18100                                | no                   | no              |                   |  |              |                  |              |
| 44                | W0832           | Fallon  | 07N 59E 22 BC             | 10 13 75 Well                   |        |  | 20 acres in size, steep hill side               | 42200                                | no                   | no              |                   |  |              |                  |              |
| 45                | W0831           | Fallon  | 07N 59E 20 AC             | 10 13 75 Reservoir              |        |  | Large reservoir not fully constructed           | 3170                                 | yes                  | yes             |                   |  |              |                  |              |
| 46                | W0830           | Fallon  | 07N 57E 27 D              | 10 13 75 Reservoir              |        |  | Low valley with farmland                        | 3600                                 | no                   | no              | 3000              |  | 211JDRV      |                  |              |
| 47                | 42M001          | Fallon  | 05N 60E 10 DA             | 10 14 75 Well                   |        | 3 cfs (E)                                      | 15 miles SE of Baker                            | 1180                                 | yes                  | yes             |                   |  |              |                  |              |
| 48                | W0834           | Fallon  | 05N 60E 13 DD             | 10 14 75 Creek                  |        | no flow  | Little Beaver Creek                             | 1800                                 | no                   | no              |                   |  |              |                  |              |
| 49                | W0834           | Fallon  | 13N 51E 30 BD             | 10 17 75 Creek                  |        | 0.5 cfs (E)                                    | Cedar Creek 5 miles N of Terry on highway       | 2500                                 | no                   | no              |                   |  |              |                  |              |
| 50                | W083            | Prairie | 12N 52E 02 BAD            | 10 18 75 Creek                  |        | 0.5 cfs (E)                                    | 0.75 mile N of Terry on highway                 | 2300                                 | yes                  | yes             |                   |  |              |                  |              |
| 51                | W0802           | Prairie | 12N 51E 14 DBA            | 10 18 75 Canal                  |        | 0.3 cfs (E)                                    | Irrigation return via Ash Creek at 1.94         | 2250                                 | no                   | no              |                   |  |              |                  |              |
| 52                | W0801           | Prairie | 11N 60E 04 DAA            | 10 18 75 River                  |        | 40 cfs (E)                                     | Powder River at bridge on 1.94                  | 1890                                 | yes                  | yes             |                   |  |              |                  |              |
| 53                | 31M001          | Prairie | 12N 58E 02 C              | 08 09 31 Well                   |        |  | 18 miles E of Fallon                            | 1880                                 | yes                  | yes             | 2750              |  | 211FXHL      |                  |              |
| 54                | W081            | Wibaux  | 14N 60E 04 CC             | 08 03 75 Well                   |        |  | Located in a coulee S of cultivated area        | 1200                                 | no                   | no              |                   |  |              |                  |              |
| 55                | W0827           | Wibaux  | 12N 61E 06 AA             | 08 04 75 Well                   |        |  |   |                                      | no                   | no              |                   |  |              |                  |              |
| 56                | W0828           | Wibaux  | 11N 59E 26                | 08 04 75 Ditch                  |        |  | Diversion ditch for mine water                  | 2650                                 | no                   | no              |                   |  |              |                  |              |
| 57                | W0828           | Wibaux  | 12N 60E 15                | 08 04 75 Reservoir              |        |  | Luna Star Creek Wildlife Refuge                 | 2650                                 | no                   | no              |                   |  |              |                  | Morris       |
| 58                | W0821           | Wibaux  | 12N 60E 25 BD             | 08 04 75 Well                   |        | 25 gpm (E)                                     | Luna Star Creek, dry land farming area          | 5150                                 | no                   | no              |                   |  |              |                  |              |
| 59                | W0821           | Wibaux  | 12N 60E 25 BD             | 08 04 75 Well                   |        | 25 gpm (E)                                     |   | 8350                                 | no                   | no              |                   |  |              |                  |              |
| 60                | W0822           | Wibaux  | 12N 60E 26 AB             | 08 04 75 Well                   |        | 5 gpm (E)                                      | 300 feet long by 20 feet wide                   | 9600                                 | no                   | no              |                   |  |              |                  |              |

## MILES CITY 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Man<br>no. | Field<br>number | County | Location<br>T R Sec Twp | Collection<br>Date<br>Mo Day Yr | Flow or yield<br>C=estimated<br>M=measured | Site description                               | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Well<br>level<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Acquirer<br>code | Owner's name |
|------------|-----------------|--------|-------------------------|---------------------------------|--|--|--------------------------------------|----------------------|-----------------|-------------------|---------------------------------|------------------------|------------------|--------------|
| 61         | WQB20           | Wibaux | 12N 59E 2E A            | 09 04 75 Pond                   |  | Located in low, boggy area                     | 2380                                 | no                   | no              |                   |                                 |                        |                  |              |
| 62         | WQB30           | Wibaux | 12N 59E 12              | 09 04 75 Spring                 |  | Surrounded by rangeland                        | 3480                                 | no                   | no              |                   |                                 |                        |                  |              |
| 63         | WQB18           | Wibaux | 12N 59E 03              | 08 04 75 Seep                   |  | 200 feet long by 50 feet wide on a hillside    | 1780                                 | yes                  | yes             |                   |                                 |                        |                  |              |
| 64         | WQB17           | Wibaux | 12N 59E 09              | 09 04 75 Reservoir              |  | Located just below the seep                    | 1380                                 | no                   | no              |                   |                                 |                        |                  |              |
| 65         | WQB19           | Wibaux | 12N 59E 22              | 09 04 75 Reservoir              |  | Located in hilly terrain, dryland farming area | 350                                  | no                   | no              |                   |                                 |                        |                  |              |
| 66         | WQB21           | Wibaux | 12N 59E 28 A            | 09 04 75 Reservoir              |  | New reservoir, sits over the ground            | 410                                  | no                   | no              |                   |                                 |                        |                  |              |
| 67         | WQB14           | Wibaux | 12N 57E 18 AC           | 09 04 75 Reservoir              | no flow                                    | Close to reservoir below Pine Lint Oil Fields  | 3340                                 | no                   | no              |                   |                                 |                        |                  |              |
| 68         | WQB15           | Wibaux | 12N 57E 29 AC           | 09 04 75 Reservoir              | 5 gpm (E)                                  | Small coulee lined with salt                   | 2920                                 | no                   | no              |                   |                                 |                        |                  |              |
| 69         | WQB16           | Wibaux | 12N 57E 09 AC           | 04 13 56 Well                   |  | 25 miles NW of Baker                           | 55600                                | yes                  | yes             | 2700              |                                 |                        | 337MSNC          |              |
| 70         | 58M0011         | Wibaux | 11N 57E 09 AC           | 04 13 56 Well                   |  |  |                                      |                      |                 |                   |                                 |                        |                  |              |
| 71         | 27M0001         | Wibaux | 11N 57E 10 CC           | 08 18 27 Well                   |  | 33 miles SW of Wibaux                          |                                      |                      | yes             | 2883              |                                 |                        | 211JDRV          |              |
| 72         | 58M0004         | Wibaux | 11N 57E 15 AA           | 10 03 56 Well                   |  | 30 miles SW of Wibaux                          | 186300                               | yes                  | yes             | 2940              |                                 |                        | 230SPRF          |              |
| 73         | WQB25           | Wibaux | 12N 60E 31              | 09 04 75 Creek                  | 2 cfs (E)                                  | Beaver Creek                                   | 2400                                 | no                   | no              |                   |                                 |                        |                  |              |
| 74         | WQB23           | Wibaux | 12N 57E 14 AC           | 11 11 79 Creek                  |  | Ash Creek near Terry                           | 1620                                 | yes                  | yes             |                   |                                 |                        |                  |              |
| 75         | WQB28           | Wibaux | 12N 60E 36              | 09 04 75 Creek                  | no flow                                    | Quick Creek, seep area at its head             | 2750                                 | no                   | no              |                   |                                 |                        |                  |              |
| 76         | WQB13           | Wibaux | 14N 59E 18              | 09 03 75 Creek                  |  | Beaver Creek at Wibaux                         | 2220                                 | no                   | no              |                   |                                 |                        |                  |              |
| 77         | 78M0096         | Custer | 07N 47E 08 A            | 01 21 78 Well                   |  | National Fish Hatcheries well no. 1            | 1909                                 | yes                  | yes             |                   |                                 |                        |                  |              |
| 78         | 78M0096         | Custer | 07N 47E 08 A            | 01 21 78 Well                   |  | National Fish Hatcheries well no. 2            | 1410                                 | yes                  | yes             |                   |                                 |                        |                  |              |
| 79         | 63M0064         | Custer | 06N 56E 17 DD           | 08 04 63 Well                   | 18.1 gpm (M)                               |  | 997                                  | 13                   | yes             |                   | 47                              | 648                    | 211FXHL          |              |
| 80         | 63M0065         | Fallon | 08N 58E 30 8D           | 06 30 63 Well                   |  |  | 1450                                 | 18                   | yes             |                   | 1178                            | 211FXHL                |                  |              |
| 81         | 63M0066         | Fallon | 06N 55E 27 8B           | 06 30 63 Well                   | 3.5 gpm (M)                                |  | 1260                                 | 15.6                 | yes             |                   | 13                              | 1100                   | 211FXHL          |              |
| 82         | 78M0016         | Custer | 10N 58E 18 CD           | 01 16 82 Well                   | 53.5 gpm (M)                               | USGS observation well                          | 2940                                 |                      | yes             |                   | 141                             | 386                    | 211FXHL          |              |
| 83         | 78M0016         | Custer | 10N 58E 18 CD           | 01 16 82 Well                   | 50 gpm (M)                                 |  | 2600                                 | 13                   | yes             | 2772              | 130                             | 241                    | 211FXHL          |              |
| 84         | 58M0010         | Fallon | 10N 58E 12 DB           | 10 27 58 Well                   |  |  | 3400                                 |                      | yes             |                   | 487                             | 211FXHL                |                  |              |
| 85         | 61M0068         | Fallon | 10N 58E 32 DB           | 04 26 61 Well                   | 35 gpm (M)                                 |  | 1240                                 | 12                   | yes             |                   | 865                             | 211FXHL                |                  |              |
| 86         | 63M0067         | Prarie | 11N 54E 29 CA           | 08 30 63 Well                   |  |  |                                      |                      | yes             |                   |                                 |                        |                  |              |
| 87         | 27M0002         | Wibaux | 11N 57E 10 CC           | 08 18 27 Well                   |  |  |                                      |                      | yes             | 2300              |                                 |                        | 211JDRV          |              |
| 88         | 31M0016         | Prarie | 12N 56E 02 C            | 08 09 31 Well                   |  | 10 miles E of Hoyt School                      | 149000                               | yes                  | yes             | 2712              |                                 |                        | 217MOOY          |              |
| 89         | 69M0001         | Dewon  | 14N 62E 17 8C           | 10 29 69 Well                   |  |  | 1000                                 |                      | yes             | 2860              |                                 |                        | 128FRUN          | Joe J.       |
| 90         | 74M0301         | Wibaux | 14N 58E 10 CDA          | 03 11 74 Well                   | 12 gpm (M)                                 |  |                                      |                      | yes             |                   |                                 |                        |                  |              |

## MILES CITY

## Chemical Analyses

| Map<br>rel<br>no. | T   | R   | Sec | Tract | Collection<br>date<br>Mo Day Yr | Source    | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sum<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Sicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|-------------------|-----|-----|-----|-------|---------------------------------|-----------|-----------------|------------------------|----------------|----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 4                 | 08N | 54E | 07  | CAC   | 11 17 76                        | Well      | 166             | 166                    | 185            | 6.3                  |              |                        |                               | 476                                     |                                      | 8.0              | 980                           |
| 7                 | 09N | 48E | 29  | ACC   | 11 17 76                        | Canal     | 86              | 38.9                   | 335            | 11                   |              |                        |                               | 508                                     |                                      | 10               | 620                           |
| 8                 | 14N | 56E | 27  | CD    | 10 20 69                        | Well      | 880             | 140                    | 5100*          |                      |              |                        |                               | 525                                     |                                      | 8800             | 940                           |
| 11                | 13N | 53E | 14  | C     | 09 07 75                        | Creek     | 108             | 130                    | 272            | 9.8                  |              |                        |                               | 565                                     |                                      | 11               | 880                           |
| 20                | 09N | 60E | 19  | AA    | 10 11 75                        | Well      | 460             | 321                    | 248            | 13                   |              |                        |                               | 78                                      |                                      | 19.2             | 2840                          |
| 39                | 07N | 60E | 24  | CC    | 10 10 75                        | Well      | 399             | 671                    | 490            | 38                   |              |                        |                               | 261                                     |                                      | 65               | 4400                          |
| 40                | 07N | 60E | 26  | 80D   | 10 10 75                        | Seep      | 410             | 202.0                  | 9200           | 97                   |              |                        |                               | 217                                     |                                      | 79               | 28600                         |
| 46                | 07N | 58E | 29  | AC    | 10 13 75                        | Reservoir | 85              | 156                    | 500            | 16                   |              |                        |                               | 800                                     | 14                                   | 13.7             | 1380                          |
| 47                | 05N | 60E | 10  | DA    | 10 14 42                        | Well      | 79              | 22                     | 3000*          |                      |              |                        |                               | 205                                     |                                      | 4700             | 44                            |
| 50                | 12N | 52E | 02  | BAD   | 10 16 78                        | Creek     | 75              | 78                     | 375            | 13                   |              |                        |                               | 488                                     |                                      | 18               | 895                           |
| 52                | 11N | 50E | 04  | DAA   | 10 18 78                        | River     | 100             | 48                     | 230            | 11                   |              |                        |                               | 222                                     | 4                                    | 81               | 620                           |
| 53                | 12N | 56E | 02  | C     | 08 09 31                        | Well      |                 |                        | 340*           |                      |              |                        |                               | 440                                     |                                      | 24               | 320                           |
| 63                | 12N | 59E | 03  |       | 08 04 75                        | Seep      | 397             | 381                    | 1320           | 11                   | .93          | 2.0                    |                               |   |                                      |                  | 5600                          |
| 70                | 11N | 57E | 09  | AC    | 04 13 56                        | Well      | 1300            | 100                    | 14000*         |                      |              |                        |                               | 313                                     |                                      | 21000            | 3700                          |
| 71                | 11N | 57E | 10  | CC    | 08 18 27                        | Well      | 120             | 30                     | 3200*          |                      |              |                        |                               | 220                                     |                                      | 7000             |                               |
| 72                | 11N | 57E | 15  | AA    | 10 03 58                        | Well      | 1800            | 260                    | 80000*         |                      |              |                        |                               | 76                                      |                                      | 120000           | 3000                          |
| 74                | 12N | 51E | 14  | AC    | 11 11 76                        | Creek     | 49.1            | 39.5                   | 280            | 11                   |              |                        |                               | 588                                     |                                      | 17               | 380                           |
| 77                | 07N | 47E | 08  | A     | 01 21 78                        | Well      | 2.8             | 4.3                    | 426            | 1.5                  |              |                        |                               | 874                                     | 34                                   | 21               | 160                           |
| 78                | 07N | 47E | 08  | A     | 01 21 76                        | Well      | 4.8             |                        | 338            | .89                  |              |                        |                               | 706                                     | 40                                   | 19.2             | 80                            |
| 79                | 05N | 56E | 17  | DD    | 09 04 53                        | Well      | .3              | .6                     | 247            | .8                   | .08          | .06                    | 14                            | 522                                     |                                      | 2.9              | 103                           |
| 80                | 08N | 58E | 30  | BD -  | 08 30 63                        | Well      | 1.7             | .2                     | 365            | 1.0                  | .01          | .01                    | 12                            | 575                                     | 50                                   | 38               | 185                           |
| 81                | 09N | 56E | 27  | BB    | 08 30 63                        | Well      | 1.1             | .2                     | 318            | .8                   | .06          |                        | 12                            | 654                                     |                                      | 14               | 126                           |
| 82                | 10N | 58E | 18  | CD    | 01 16 62                        | Well      | 9               | 4                      | 785            |                      |              |                        |                               | 1088                                    |                                      | 16               | 748                           |
| 83                | 10N | 58E | 18  | CD    | 02 08 72                        | Well      | 8.6             | 2.5                    | 650            | 2.0                  | .01          |                        | 17.4                          | 1032                                    |                                      | 6.1              | 573                           |
| 84                | 10N | 58E | 32  | DB    | 10 27 58                        | Well      | 13              | 5                      | 877            |                      |              |                        |                               | 1048                                    | 60                                   | 14               | 942                           |
| 85                | 10N | 58E | 32  | DB    | 04 26 81                        | Well      | 8               | 3                      | 840            |                      |              |                        |                               | 793                                     | 108                                  | 40               | 934                           |
| 86                | 11N | 54E | 29  | CA    | 08 30 62                        | Well      | 1.8             | .4                     | 315            |                      |              |                        | 11                            | 645                                     | 22                                   | 16               | 85                            |
| 87                | 11N | 57E | 10  | CC    | 08 18 27                        | Well      | 120             | 30                     | 3200*          |                      |              |                        |                               | 220                                     |                                      | 7000             |                               |
| 88                | 12N | 56E | 02  | C     | 08 09 31                        | Well      |                 |                        | 770*           |                      |              |                        |                               | 1000                                    | 109                                  | 180              | 410                           |
| 89                | 14N | 52E | 17  | BC    | 10 29 86                        | Well      | 12              | 12                     | 3000*          |                      |              |                        |                               | 2160                                    |                                      | 3400             | 16                            |
| 90                | 14N | 59E | 10  | COA   | 03 11 74                        | Well      | 107             | 60                     | 35.9           | 4.1                  |              |                        | 9.5                           | 418                                     |                                      | 6.2              | 246                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium



1° x 2° Sheet

## of Selected Waters

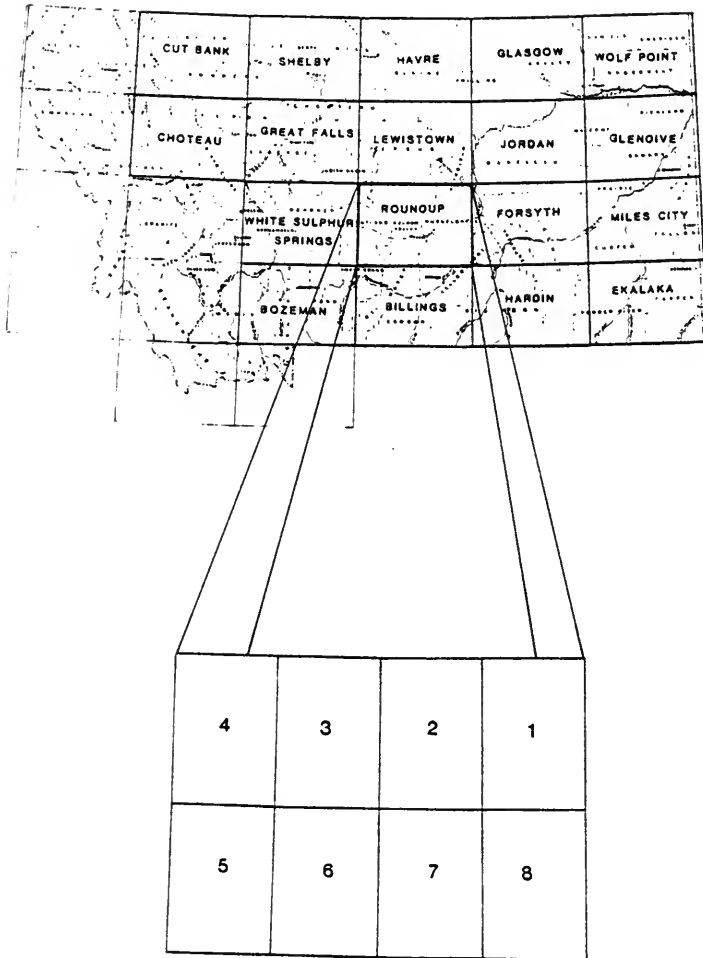
| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 4                  | .48            |                 | 8.00      |                      | 2274  | 1060                           | 1100                                      | 390   | 2.4                           | WQB                  |                        |                 | no                            | 76W2758       |
| 7                  | 2.1            |                 | 8.20      |                      | 1878  | 881                            | 325                                       | 415   | 8.1                           | WQB                  |                        |                 | no                            | 76W2757       |
| 8                  |                |                 | 6.10      |                      |   |                                | 2720                                      | 431   |                               | Unknown              |                        | 337MSNC         | no                            | 88M0009       |
| 11                 | 8.6            |                 | 7.94      |                      | 2360  | 1972                           | 798                                       | 455   | 4.2                           | WQB                  |                        |                 | no                            | 75W1901       |
| 20                 | .93            |                 | 5.81      |                      | 4150  | 3980                           | 2470                                      | 64  | 2.2                           | WQB                  |                        |                 | no                            | 75W2110       |
| 29                 | .02            |                 | 7.08      |                      | 6660  | 6324                           | 3760                                      | 214   | 3.5                           | WQB                  |                        |                 | no                            | 75W2112       |
| 40                 | 1.1            |                 | 7.47      |                      | 39000                                       | 40520                          | 9340                                      | 178   | 41.4                          | WQB                  |                        |                 | no                            | 75W2113       |
| 46                 | .02            |                 | 8.51      | 7                    | 3170  | 2744                           | 852                                       | 515   | 7.5                           | WQB                  |                        |                 | no                            | 75W2102       |
| 47                 |                |                 |           |                      |   |                                | 288                                       | 168   |                               | Unknown              |                        | 211JDRV         | no                            | 42M0001       |
| 50                 | 2.0            |                 | 8.10      |                      | 2300  | 984                            | 510                                       | 400   | 7.2                           | WQB                  |                        |                 | no                            | 76W2589       |
| 52                 | .52            |                 | 8.40      |                      | 1890  | 880                            | 461                                       | 189   | 4.7                           | WQB                  |                        |                 | no                            | 76W2588       |
| 53                 |                |                 |           |                      |   |                                |   | 361   |                               | Unknown              |                        | 211FXHL         | no                            | 31M0001       |
| 63                 | 2.6            |                 | 4.44      |                      | 7760  | 7619                           | 2560                                      |   | 11.4                          | WQB                  |                        |                 | yes                           | 75W1900       |
| 70                 |                |                 | 8.30      |                      |   |                                | 3660                                      | 257   |                               | Unknown              |                        | 337MSNC         | no                            | 56M0011       |
| 71                 |                |                 |           |                      |   |                                | 423                                       | 180   |                               | Unknown              |                        | 211JDRV         | no                            | 27M0001       |
| 72                 |                |                 | 6.50      |                      |   |                                | 5560                                      | 62  |                               | Unknown              |                        | 230SPRF         | no                            | 56M0004       |
| 74                 |                |                 | 8.00      |                      | 1620  | 207                            | 285                                       | 480   | 7.2                           | WQB                  |                        |                 | no                            | 76W2743       |
| 77                 |                |                 | 8.79      |                      | 1909  | 1523                           | 25  | 772   | 37.4                          | NFH                  |                        |                 | no                            | 76W0095       |
| 78                 |                |                 | 8.94      |                      | 1410  | 1188                           | 12  | 644   | 42.1                          | NFH                  |                        |                 | no                            | 76W0096       |
| 79                 | .2             | .8              | 8.00      | 13                   | 997   | 627                            | 3   | 428   | 62                            | Unknown              |                        | 211FXHL         | no                            | 63M0054       |
| 80                 | .2             | .9              | 8.40      | 18                   | 1450  | 917                            | 5   | 555   | 71                            | Unknown              |                        | 211FXHL         | no                            | 63M0055       |
| 81                 |                | 1.4             | 8.20      | 15.5                 | 1260  | 795                            | 4   | 536   | 69                            | Unknown              |                        | 211FXHL         | no                            | 63M0056       |
| 82                 |                |                 | 7.60      |                      | 2940  | 2083                           | 39  | 901   | 53                            | Unknown              |                        | 211FXHL         | no                            | 62M0018       |
| 83                 | .723           |                 | 8.02      | 13                   | 2800  | 1770                           | 34  | 847   | 48.4                          | Unknown              |                        | 211FXHL         | no                            | 72M0071       |
| 84                 |                |                 | 8.70      |                      | 3050  | 2428                           | 53  | 960   | 52                            | Unknown              |                        | 211FXHL         | no                            | 58M0010       |
| 85                 |                |                 | 8.30      |                      | 3400  | 2324                           | 33  | 831   | 95                            | Unknown              |                        | 211FXHL         | no                            | 61M0006       |
| 86                 | .1             | 1.5             | 8.60      | 12                   | 1240  | 771                            | 6   | 566   | 58                            | Unknown              |                        | 211FXHL         | no                            | 63M0067       |
| 87                 |                |                 |           |                      |   |                                | 423                                       | 180   |                               | Unknown              |                        | 211JDRV         | no                            | 27M0002       |
| 88                 |                |                 |           |                      |   |                                |   | 1000  |                               | Unknown              |                        | 211FXHL         | no                            | 31M0016       |
| 89                 |                |                 | 7.80      |                      |   |                                | 79  | 1770  |                               | Unknown              |                        | 217MODY         | no                            | 88M0001       |
| 90                 |                | 0.3             | 7.47      | 5.5                  | 1000  | 875                            | 515                                       | 343   | 0.7                           | SCS                  |                        | 125PRUN         | no                            | 74M0301       |

## MILES CITY 1° x 2° Sheet

### Trace Elements Analysis Sheet

[illegible]

# LOCATION BASE MAP

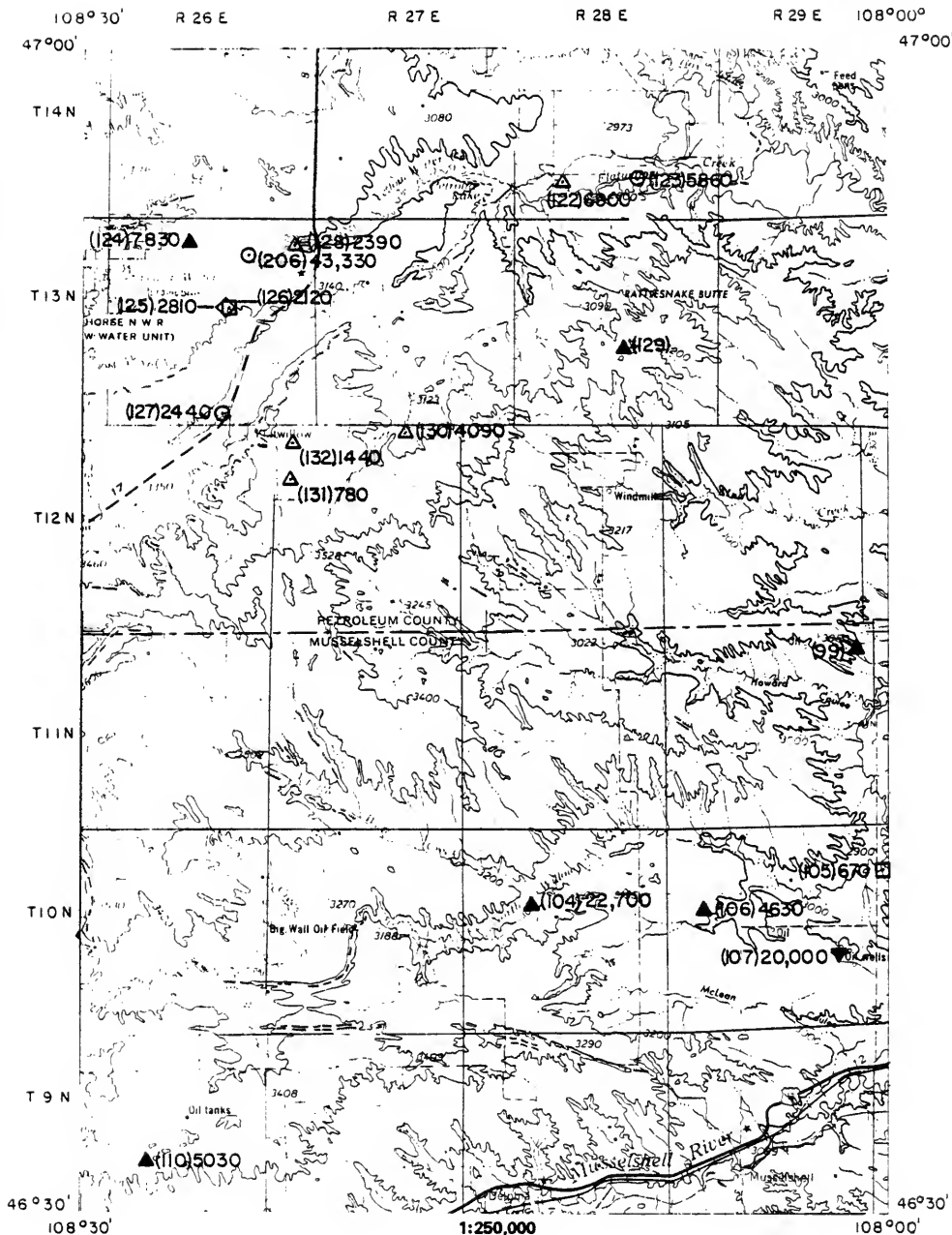


ROUNDUP 1° x 2° SHEET

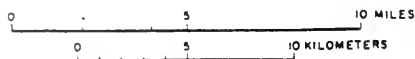


# SPECIFIC CONDUCTANCE SURVEY

ROUNDUP 1



## ROUNDUP 2



**CONTOUR INTERVAL 100 FT**

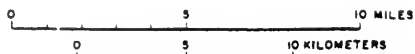
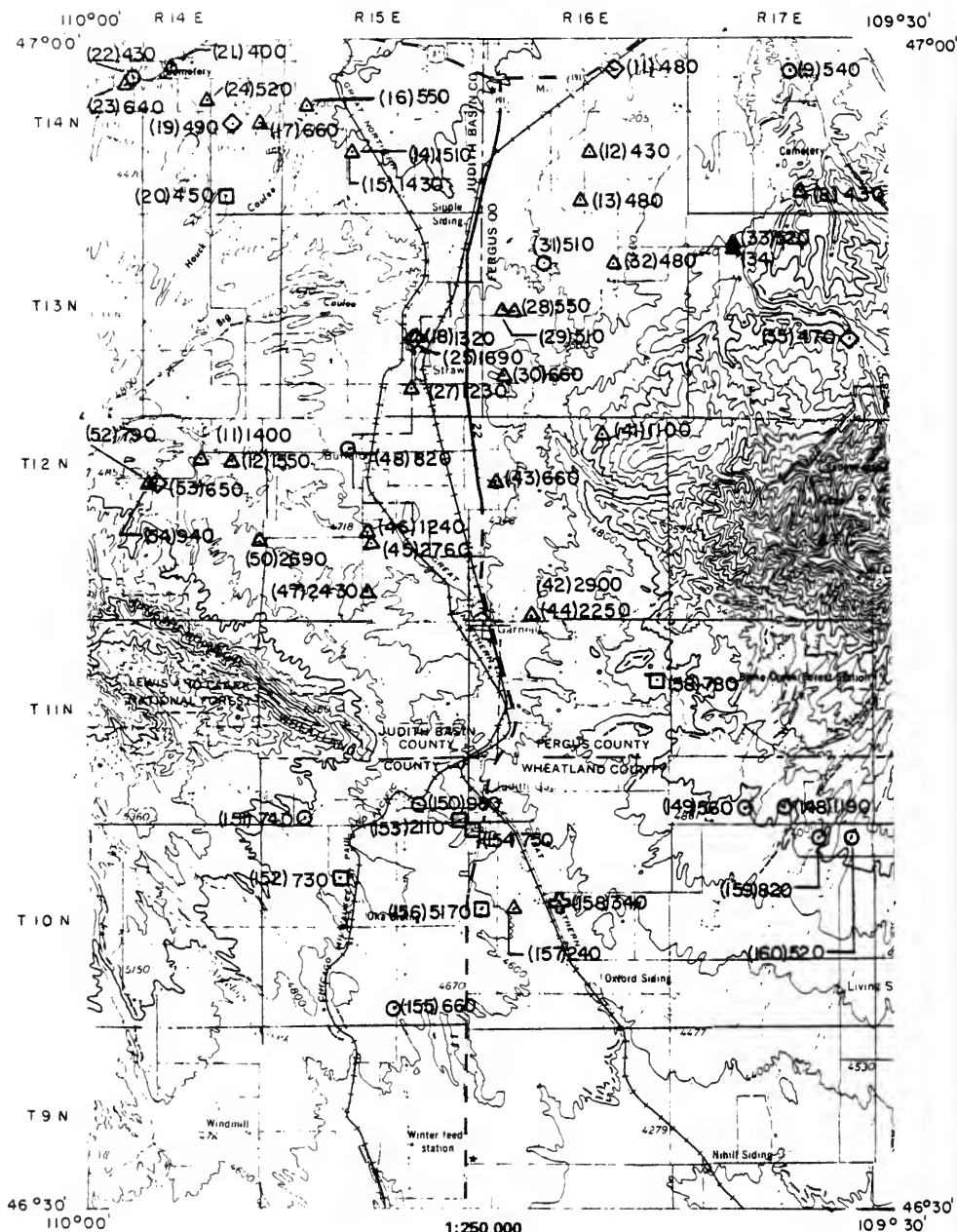
### ROUNDUP 3

109°00'



# SPECIFIC CONDUCTANCE SURVEY

GROUP 4

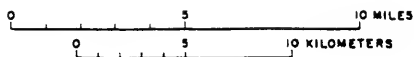
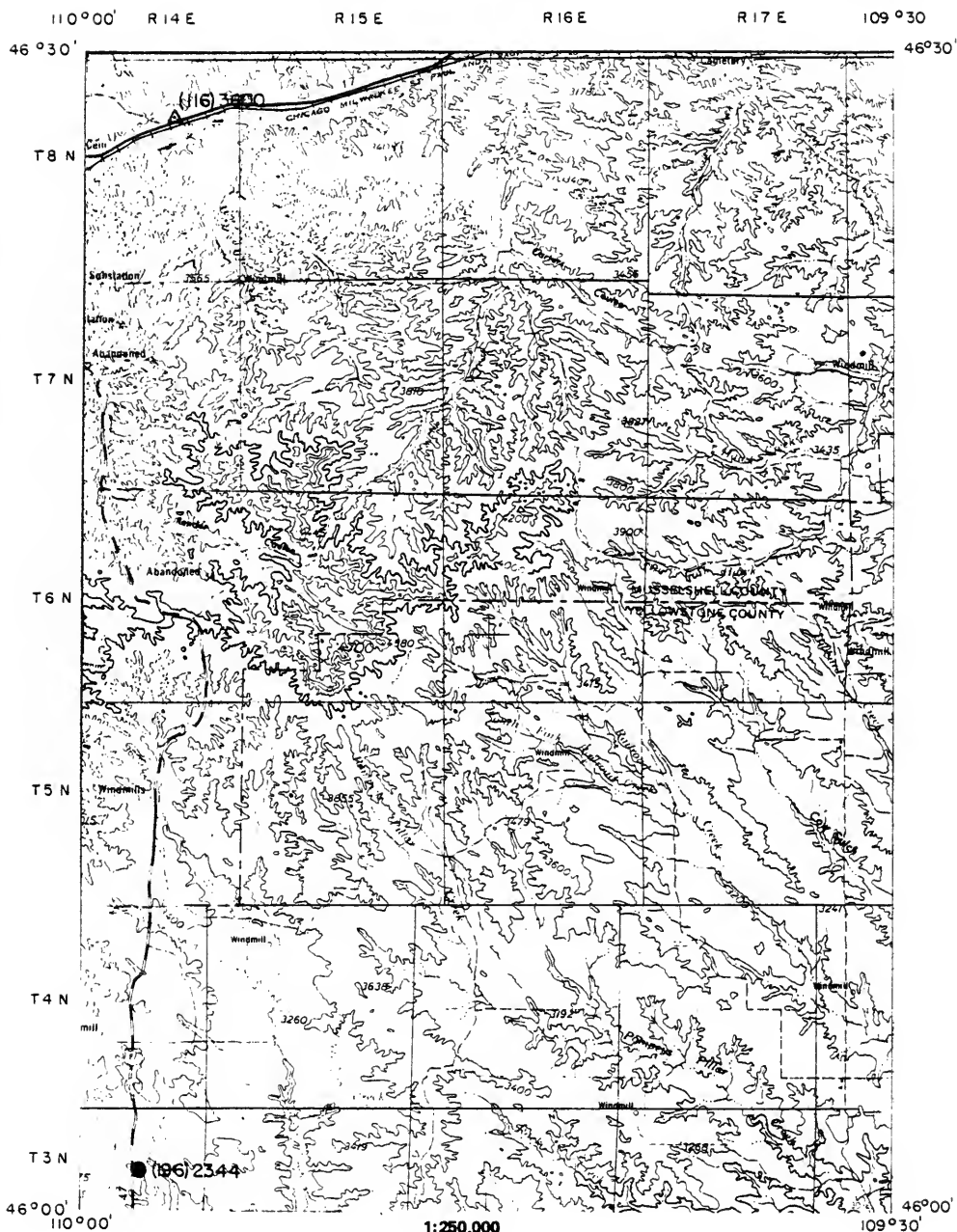


CONTOUR INTERVAL 100 FT



# SPECIFIC CONDUCTANCE SURVEY

ROUNDUP 3

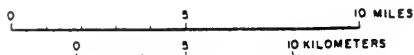


CONTOUR INTERVAL 100 FT

## ROUNDUP 6

46°00'  
109°30'

**1:250.000**



**CONTOUR INTERVAL 100 FT**

## ROUNDUP 7

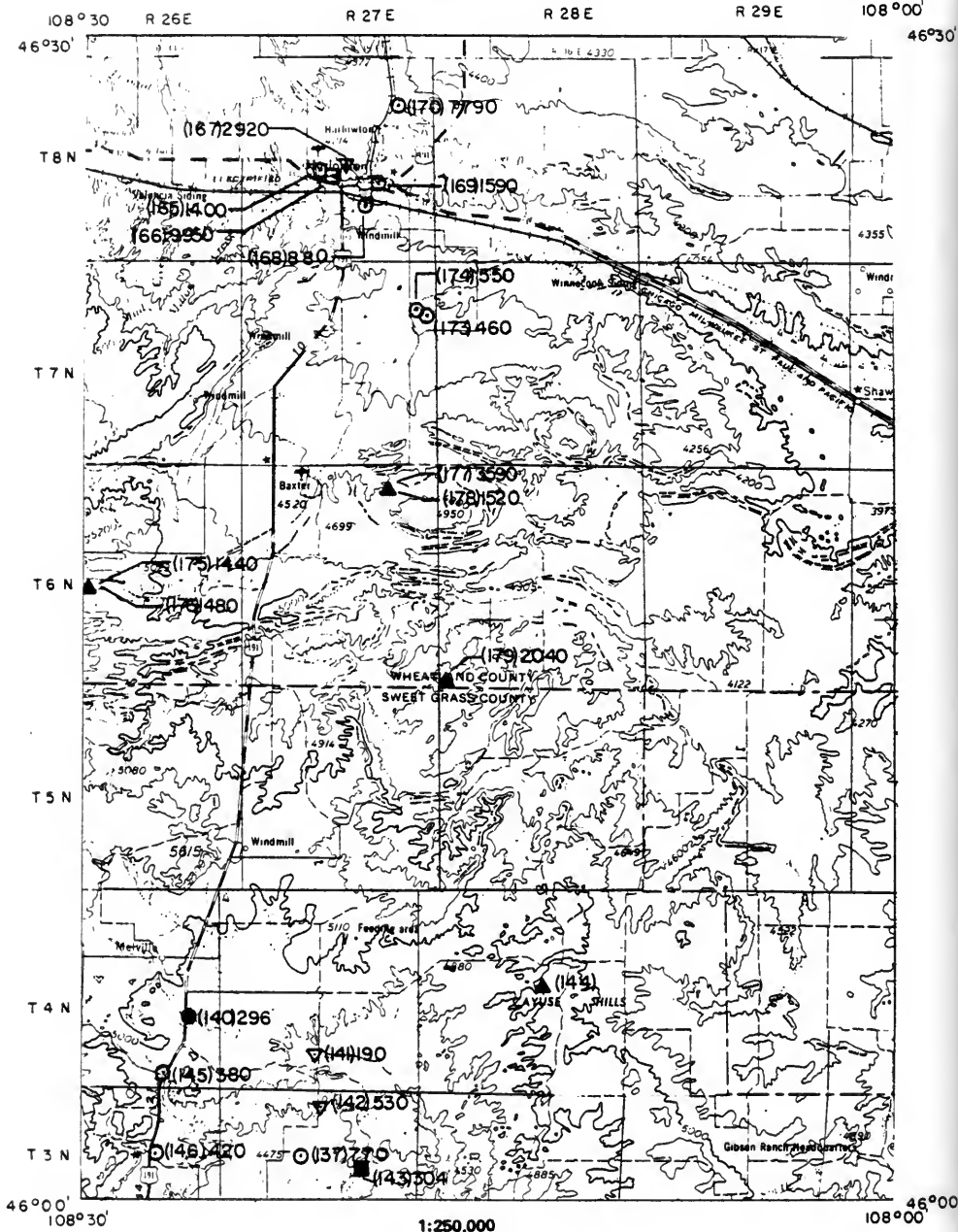
108° 30'

46°3C

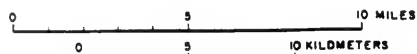


# SPECIFIC CONDUCTANCE SURVEY

ROUNDUP #



1:250,000



CONTOUR INTERVAL 100 FT

# ROUNDUP 1" x 2" Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref. | Field<br>no. | County       | Location<br>T R S Sec Tract | Collection<br>date<br>Mo Day Yr. | Source | Flow or Yield<br>E=estimated<br>M=measured | Site description                                | Field<br>temp.<br>at 25 °C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name    |
|-------------|--------------|--------------|-----------------------------|----------------------------------|--------|--|---|----------------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|-----------------|
| 1           | MBMG28       | Fergus       | 14N 06E 28 8BAC             |                                  | Well   |  | Domestic use, water forms white deposits        | 7820                       |                 | 4550            |                                 | 80                   |                 | Lodman          |
| 2           | MBMG29       | Fergus       | 14N 06E 28 8BAC             |                                  | Well   |  | Domestic use, water forms white deposits        | 7820                       |                 | 4550            |                                 | 80                   |                 | Lodman          |
| 3           | MBMG24       | Fergus       | 14N 06E 28 8BAC             |                                  | Well   | 20 gpm                                     | Domestic use, water forms white deposits        | 510                        |                 | 4380            |                                 | 250                  |                 | Bruck, Lee      |
| 4           | MBMG24       | Fergus       | 14N 06E 28 8BAC             |                                  | Well   |  | Stock use, water forms white deposits           | 810                        |                 | 4630            |                                 | 132                  |                 | Chapel          |
| 5           | MBMG23       | Fergus       | 14N 06E 21 DAB8             |                                  | Well   |  | Domestic use, water contains much iron          | 580                        |                 | 4220            |                                 |                      |                 | Gervais, Don    |
| 6           | MBMG21       | Fergus       | 14N 06E 09 BDCA             |                                  | Spring |  | Domestic use, water contains much iron          | 580                        |                 | 4220            |                                 |                      |                 | Gervais, Don    |
| 7           | 6HMO21       | Fergus       | 14N 06E 18 8DAB             | 03 28 67                         | Spring |  | Domestic and stock use                          | 340                        | yes             | 4370            | 50                              | 121                  | 217KOTN         | McCollum, Fay   |
| 8           | MBMG01       | Fergus       | 14N 06E 18 8DAB             |                                  | Well   | 12 gpm                                     | Stock use, well located 3.9 miles SE of Glenary | 430                        |                 | 4400            |                                 | 200                  |                 | Appe, G.        |
| 9           | MBMG17       | Fergus       | 14N 06E 34 BDCB             |                                  | Well   |  | Domestic use                                    | 840                        |                 | 4200            |                                 |                      |                 | Jennings, Clark |
| 10          | MBMG26       | Fergus       | 14N 06E 10 CC               |                                  | Creek  | 0.5 cfs                                    | East Fork Big Spring Creek                      | 1170                       |                 | 4170            |                                 |                      |                 |                 |
| 11          | MBMG19       | Fergus       | 14N 06E 10 DAB8             |                                  | Spring |  | Domestic and stock use                          | 480                        |                 | 4150            |                                 |                      |                 | Bricker, Don    |
| 12          | MBMG19       | Fergus       | 14N 06E 27 8B8B             |                                  | Well   | 50 gpm                                     | Domestic use                                    | 430                        |                 | 4230            |                                 | 100                  |                 | Melcher, Les    |
| 13          | MBMG2        | Fergus       | 14N 06E 33 DADA             |                                  | Well   |  | Domestic use                                    | 480                        |                 | 4280            |                                 |                      |                 | Borcharding     |
| 14          | MBMG71       | Judith Basin | 14N 15E 28 8B8B             |                                  | Well   |  | Stock use and lawn irrigation, water is soft    | 1510                       |                 | 4040            |                                 |                      |                 | Wichman         |
| 15          | MBMG72       | Judith Basin | 14N 15E 28 8B8B             |                                  | Well   |  | Domestic use, water is soft, well is in house   | 1430                       |                 | 4040            |                                 |                      |                 | Wichman         |
| 16          | MBMG70       | Judith Basin | 14N 15E 18 DAAA             |                                  | Well   |  | Domestic use                                    | 550                        |                 | 4110            |                                 |                      |                 | Stevenson       |
| 17          | MBMG69       | Judith Basin | 14N 15E 24 BDAB             |                                  | Well   |  | Well is located 50 feet NE of house             | 660                        |                 | 4240            |                                 | 12                   |                 | Paustal         |
| 18          | MBMG74       | Judith Basin | 13N 15E 23 CBCC             |                                  | Well   |  | Well is located 20 feet S of house              | 1320                       |                 | 4150            |                                 |                      |                 | Shane           |
| 19          | MBMG68       | Judith Basin | 14N 14E 23 ACDD             |                                  | Spring |  | Spring is located 30 feet S of sheep shed       | 490                        |                 | 4270            |                                 |                      |                 | Paustal         |
| 20          | MBMG73       | Judith Basin | 14N 14E 35 BCDD             |                                  | Pond   |  | Many cattails growing on E and W banks          | 450                        |                 | 4330            |                                 |                      |                 |                 |
| 21          | MBMG66       | Judith Basin | 14N 14E 09 DABB             |                                  | Well   | 132 cfs                                    | Well is in basement, water is hard              | 400                        |                 | 4210            |                                 |                      |                 | Watson          |
| 22          | MBMG65       | Judith Basin | 14N 14E 09 DACC             |                                  | Creek  |  | Water is clear                                  | 430                        |                 | 4230            |                                 |                      |                 | Watson          |
| 23          | MBMG67       | Judith Basin | 14N 14E 15 DAAA             |                                  | Well   |  | Well is often pumped dry when watering lawn     | 520                        |                 | 4250            |                                 | 160                  |                 | Est. Jerry      |
| 24          | MBMG67       | Judith Basin | 14N 14E 15 DAAA             |                                  | Well   |  | Well is often pumped dry when watering lawn     | 520                        |                 | 4250            |                                 |                      |                 | Stevenson       |
| 25          | MBMG75       | Judith Basin | 13N 15E 23 CBCC             |                                  | Spring |  | Spring is located 90 feet NE of house           | 1680                       |                 | 4160            |                                 |                      |                 | Shane           |
| 26          | not on map   |              |                             |                                  |        |  |   |                            |                 |                 |                                 |                      |                 |                 |
| 27          | MBMG76       | Judith Basin | 13N 15E 34 AAB8             |                                  | Well   |  | Stock use and lawn irrigation, water is hard    | 1230                       |                 | 4200            |                                 | 50                   |                 | Hosen           |
| 28          | MBMG5        | Fergus       | 13N 06E 18 DDD              |                                  | Well   |  | Domestic use                                    | 550                        |                 | 4280            |                                 |                      |                 | Hannan, Wayne   |
| 29          | MBMG4        | Fergus       | 13N 06E 18 DDDD             |                                  | Well   |  | Domestic use except for drinking                | 510                        |                 | 4280            |                                 |                      |                 | Hannan, Wayne   |
| 30          | MBMG11       | Fergus       | 13N 06E 30 DDDD             |                                  | Well   |  | Domestic use                                    | 660                        |                 | 4390            |                                 |                      |                 | Wright, Roland  |

ROUNDUP 1' x 2' Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no. | Field<br>number | County       | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E=estimated<br>M=measured | Site description | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab.<br>analysis | Altitude<br>ft. | Static<br>water<br>level depth<br>ft. | Well<br>code | Owner's name    |
|-------------------|-----------------|--------------|---------------------------|---------------------------------|--|------------------|--------------------------------------|---------------------|------------------|-----------------|---------------------------------------|--------------|-----------------|
| 31                | MBMG3           | Fergus       | 13N 18E 08 AD             |                                 | Creek                                      | 0.7 cfs          | 510                                  | 12                  |                  | 4160            |                                       |              | Herman, Valerie |
| 32                | MBMG12          | Fergus       | 13N 18E 10 ADD            |                                 | Well                                       |                  | 480                                  | 12                  |                  | 4380            |                                       |              | Peart, Levern   |
| 33                | MBMG13          | Fergus       | 13N 17E 05 CDD            |                                 | Well                                       |                  | 520                                  | 11.5                | yes              | 4580            |                                       |              | Waters, Johnnie |
| 34                | 64M0020         | Fergus       | 13N 17E 05 CDD            | 03 28 67                        | Well                                       | 4.5 gpm          |                                      |                     |                  |                 |                                       |              | Waters, R       |
| 35                | MBMG14          | Fergus       | 13N 17E 23 DAAC           |                                 | Spring                                     |                  | 470                                  | 13                  |                  | 5000            | 12                                    | 175 217KDTN  |                 |
| 36                | MBMG16          | Fergus       | 13N 18E 06 DECA           |                                 | Spring                                     |                  |                                      |                     |                  |                 |                                       |              |                 |
| 37                | MBMG30          | Fergus       | 13N 20E 02 BB8B           |                                 | Reservoir                                  | 3 gpm            | 680                                  | 8                   |                  | 4600            |                                       |              | Columbus, Reg   |
| 38                | MBMG29          | Fergus       | 13N 20E 02 BB8B           |                                 | Spring                                     |                  | 1820                                 | 13                  |                  | 4600            |                                       |              | Ericksen        |
| 39                | MBMG32          | Fergus       | 13N 21E 14 BCDA           |                                 | Reservoir                                  |                  | 1000                                 | 15                  |                  | 4600            |                                       |              | Ericksen        |
| 40                | MBMG33          | Fergus       | 13N 21E 35                |                                 | Spring                                     |                  | 1200                                 | 15.5                |                  | 4650            |                                       |              | Abbot, Darrell  |
| 40A               | MBMG35          | Fergus       | 13N 21E 35                |                                 | Spring                                     |                  | 880                                  | 16.5                |                  | 5000            |                                       |              |                 |
| 40B               | MBMG14          | Fergus       | 13N 21E 06                |                                 | Spring                                     | 3 gpm            | 520                                  | 9                   |                  | 4350            |                                       |              | Frankbauer      |
| 41                | MBMG8           | Fergus       | 13N 22E 24 BC             |                                 | Pond                                       |                  | 1010                                 | 12                  |                  | 4385            |                                       |              | Limmon, Leo     |
| 42                | MBMG9           | Fergus       | 13N 18E 32 DDD            |                                 | Well                                       | 8 gpm            | 1100                                 | 11.0                |                  | 4900            |                                       | 68           | Elliot, Glen    |
| 43                | MBMG10          | Fergus       | 12N 18E 07 DDDD           |                                 | Well                                       | 3 gpm            | 2900                                 | 9                   |                  | 4450            |                                       | 250          | Gibbs, Lee      |
| 44                | MBMG7           | Fergus       | 12N 18E 32 DDD            |                                 | Well                                       |                  | 660                                  | 12.5                |                  | 4350            |                                       |              |                 |
| 45                | MBMG86          | Judith Basin | 12N 15E 22 CBAA           |                                 | Well                                       |                  | 2250                                 | 12.5                |                  | 4450            |                                       | 12           | Elliot, Glen    |
| 46                | MBMG87          | Judith Basin | 12N 15E 22 BCDD           |                                 | Well                                       |                  | 2760                                 | 12.8                |                  | 4400            |                                       |              | Peterson        |
| 47                | MBMG88          | Judith Basin | 12N 15E 34 BB8B           |                                 | Well                                       |                  | 1240                                 | 11                  |                  | 4390            |                                       | 1060         | McDonald        |
| 48                | MBMG84          | Judith Basin | 12N 15E 04 CDDD           |                                 | Creek                                      | 1 cfs            | 2430                                 | 12                  |                  | 4500            |                                       |              |                 |
| 49                | MBMG83          | Judith Basin | 12N 14E 12 BBCC           |                                 | Well                                       |                  | 820                                  | 18.3                |                  | 4340            |                                       |              |                 |
| 50                | MBMG85          | Judith Basin | 12N 14E 24 DAAD           |                                 | Well                                       |                  | 1650                                 | 10                  |                  | 4620            |                                       |              | Gibbs, Lee      |
| 51                | MBMG82          | Judith Basin | 12N 14E 11 BB8C           |                                 | Well                                       |                  | 2890                                 | 11.8                |                  | 4600            |                                       |              | Cramer          |
| 52                | MBMG79          | Judith Basin | 12N 14E 09 DCAD           |                                 | Well                                       |                  | 1400                                 | 10                  |                  | 4520            | 7                                     | 15           | Gibbs, Lee      |
| 53                | MBMG81          | Judith Basin | 12N 14E 06 DDCD           |                                 | Spring                                     |                  | 780                                  | 16                  |                  | 4710            |                                       | 90           | McKinlay        |
| 54                | MBMG80          | Judith Basin | 12N 14E 09 DCDA           |                                 | Well                                       |                  | 650                                  | 9                   |                  | 4710            |                                       |              | McKinlay        |
| 55                | not on map      |              |                           |                                 |  |                  | 940                                  | 11.5                |                  | 4710            | 8                                     | 17           |                 |
| 57                | not on map      |              |                           |                                 |  |                  |                                      |                     |                  |                 |                                       |              |                 |
| 58                | MBMG8           | Fergus       | 11N 18E 12 DB8B           |                                 | Reservoir                                  |                  | 780                                  | 13.0                |                  | 4500            |                                       |              |                 |

ROUNDUP 1' x 2' Sheet (Con't.)

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|-------------|--------------|-----------------|---------------|-----|-----|-----|-------|----------|--------------------|--|---|-------------------------------------|--------------------|-----------------|-----------------|--|----------------------|-----------------|--------------|
| 59          | WOB18        |                 | Golden Valley | 08N | 20E | 24  | CC    |          | 09 11 75 Pond      |  | Near road                                     | 670                                 |                    |                 | 4400            |  |                      |                 |              |
| 60          | WOB19        |                 | Golden Valley | 08N | 20E | 27  | AD    |          | 09 11 75 Well      |  | Junction of Twin and Ashley Coulees           | 4100                                |                    |                 | 4100            | lowering                                 |                      |                 |              |
| 61          | WOB17        |                 | Golden Valley | 08N | 20E | 36  | D     |          | 09 11 75 Creek     |  | Near Merrill Springs                          | 490                                 |                    |                 | 4070            |  |                      |                 |              |
| 62          | WOB15        |                 | Golden Valley | 08N | 20E | 34  | CC    |          | 09 11 75 Spring    |  | 0.5 mile NE of Merrill Springs Creek          | 7800                                |                    |                 | 4000            |  |                      | 320AMSD         |              |
| 53          | 55AM041      |                 | Golden Valley | 08N | 20E | 31  | BD    |          | 04 01 65 Well      |  |   | 4280                                |                    | yes             |                 |  |                      |                 |              |
| 64          | WOB19        |                 | Golden Valley | 10N | 18E | 21  | CC    |          | 09 11 75 Creek     |  | Swimming Woman Creek                          | 410                                 |                    |                 | 4380            |  |                      |                 |              |
| 65          | WOB13        |                 | Golden Valley | 08N | 20E | 09  | AB    |          | 09 11 75 Pond      |  | NE of Ryegate Road                            | 1560                                |                    |                 | 4700            |  |                      |                 |              |
| 66          | WOB14        |                 | Golden Valley | 08N | 20E | 02  | BA    |          | 09 11 75 Pond      |  | One acre in state, located NE of Ryegate Road | 320                                 |                    |                 | 4000            |  |                      |                 |              |
| 67          | WOB20        |                 | Golden Valley | 08N | 20E | 02  | CC    |          | 03 11 75 Well      |  | NE of Ryegate Road                            | 2700                                |                    | yes             | 4000            |  |                      | 211MRSN         |              |
| 58          | 58AM021      |                 | Golden Valley | 08N | 21E | 29  | CA    |          | 04 05 69 Well      |  | One mile NW of Dry Lake                       | 5700                                |                    | yes             | 4030            |  |                      | 320AMSD         |              |
| 69          | 54AM016      |                 | Golden Valley | 08N | 21E | 28  | CB    |          | 04 28 64 Well      | .75 gpm  | One mile NW of Dry Lake                       |                                     |                    | yes             | 4050            |  |                      | 320AMSD         |              |
| 70          | WOB5         |                 | Golden Valley | 08N | 22E | 32  | DD    |          | 09 09 75 Creek     |  | Current Creek                                 | 4400                                |                    |                 | 3700            |  |                      |                 |              |
| 71          | WOB29        |                 | Golden Valley | 07N | 22E | 01  | BBC   |          | 10 28 78 Creek     | 1 cfs  | Current Creek, 5.8 miles N of U.S. 12         | 1515                                |                    | yes             | 3600            |  |                      |                 |              |
| 72          | WOB23        |                 | Golden Valley | 07N | 22E | 23  | DD    |          | 04 28 75 Pond      |  | Stock tank 2.2 miles N of Lavana              | 6450                                |                    | yes             | 3510            |  |                      |                 |              |
| 73          | WOB22        |                 | Golden Valley | 07N | 22E | 26  | DD    |          | 04 28 75 Pond      |  | Stock tank one mile N of Lavana               | 5600                                |                    | yes             | 3500            |  |                      |                 |              |
| 74          | 54AM004      |                 | Golden Valley | 07N | 23E | 37  | CA    |          | 09 08 50 Well      |  | Three miles E of Dry Lake                     | 7670                                |                    | yes             | 3570            |  |                      | 217LKOT         |              |
| 75          | 56AM010      |                 | Golden Valley | 07N | 22E | 27  | CA    |          | 09 08 50 Well      |  |   | 4450                                |                    | yes             | 3570            |  |                      | 331CRLS         |              |
| 76          | WOB30        |                 | Golden Valley | 07N | 22E | 26  | DA    |          | 10 28 76 Well      |  | 1.2 miles N of U.S. 12, Jensen-A well         | 5730                                |                    | yes             | 3600            |  |                      |                 |              |
| 77          | WOB7         |                 | Golden Valley | 07N | 20E | 28  |       |          | 09 11 75 Sexp      |  | NE of Ryegate                                 | 380                                 |                    |                 | 3800            |  |                      |                 |              |
| 78          | WOB6         |                 | Golden Valley | 07N | 20E | 33  |       |          | 09 11 75 Pond      |  |   | 2360                                |                    |                 | 3790            |  |                      |                 |              |
| 79          | WOB12        |                 | Golden Valley | 07N | 20E | 18  | BB    |          | 09 11 75 Pond      |  | Near railroad track by Franklin Pond          | 1520                                |                    |                 | 3750            |  |                      |                 |              |
| 80          | not on map   |                 |               |     |     |     |       |          |                    |  |   |                                     |                    |                 |                 |  |                      |                 |              |
| 81          | WOB10        |                 | Golden Valley | 07N | 20E | 19  | BD    |          | 09 11 75 Ditch     |  | NW of Ryegate, 0.5 mile from highway          | 2300                                |                    |                 | 3810            |  |                      |                 |              |
| 82          | WOB11        |                 | Golden Valley | 07N | 20E | 18  | BB    |          | 09 11 75 Creek     |  | Carlees Creek at bridge N of Ryegate          | 1230                                |                    |                 | 3800            |  |                      |                 |              |
| 83          | WOB27        |                 | Golden Valley | 07N | 20E | 19  | DBC   |          | 10 28 76 Creek     | 5 cfs  | Carlees Creek N of Ryegate                    | 5447                                |                    | yes             | 3810            |  |                      |                 |              |
| 84          | WOB25        |                 | Golden Valley | 07N | 19E | 20  | CD    |          | 10 28 78 Ditch     | 6 cfs  | 3.2 miles N of Barber                         | 620                                 |                    |                 | 3800            |  |                      |                 |              |
| 85          | WOB26        |                 | Golden Valley | 06N | 18E | 02  | CC    |          | 10 28 76 Ditch     | 0.5 cfs  | 2.2 miles W of Ryegate                        | 1160                                |                    |                 | 3800            |  |                      |                 |              |
| 86          | WOB20        |                 | Golden Valley | 06N | 20E | 07  | DD    |          | 05 09 75 Creek     | 50 cfs   | Fish Creek S of Ryegate                       | 556                                 |                    | yes             | 3800            |  |                      |                 |              |
| 87          | WOB8         |                 | Golden Valley | 06N | 20E | 07  | DD    |          | 09 11 75 Creek     | B cfs  | Fish Creek S of Ryegate                       | 890                                 |                    |                 | no              | 3800                                     |                      |                 |              |
| 88          | WOB21        |                 | Golden Valley | 06N | 20E | 03  | CA    |          | 05 09 75 River     | 1490 cfs (M)                                   | Muskeleshill River at Ryegate gauging station | 831                                 |                    | yes             | 3700            |  |                      |                 |              |

ROUNDUP 1" x 2" Sheet (Cont.)  
Specific Conductivity Inventory Sheet (Cont.)

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|-------------|--------------|---------------|----------------|----------|--------------------|--|--|--------------------------------------|----------------------|-----------------|-----------------|--|------------------------|-----------------|--------------|
| 89          | W080         | Golden Valley | 06N 20E 32 CC  |          | 09 11 75           | Hand                                       | E of road, N of Ryegate                    | 530                                  |                      | no              | 4010            |  |                        |                 |              |
| 90          | W081         | Golden Valley | 06N 21E 30 DA  |          | 09 09 75           | See  |  | 3570                                 |                      | no              | 4000            |  |                        |                 |              |
| 91          | W082         | Golden Valley | 06N 21E 30 DA  |          | 09 09 75           | See  | Big Coulee                                 | 2870                                 |                      | no              | 4000            |  |                        |                 |              |
| 92          | W082A        | Golden Valley | 06N 22E 11 C   |          | 09 09 75           | Coulee                                     | Muskeg River at Lynna                      | 1224                                 |                      | yes             | 3500            |  |                        |                 |              |
| 93          | W084         | Golden Valley | 06N 22E 11 C   |          | 09 09 75           | River                                      | Muskeg River at Lynna                      | 960                                  |                      | no              | 3600            |  |                        |                 |              |
| 94          | 32AM003      | Golden Valley | 06N 22E 28 DOC |          | 07 09 32           | Well                                       | One mile E of Belmont                      |                                      |                      | yes             | 3650            |  |                        | 211FRNR         |              |
| 95          | W081         | Golden Valley | 06N 23E 15 AD  |          | 09 09 75           | Creek                                      | Painted Robe Creek                         | 3150                                 |                      | no              | 3650            |  |                        |                 |              |
| 96          | W0831        | Golden Valley | 06N 22E 01 CND |          | 10 28 78           | Creek                                      | Painted Robe Creek at highway              | 3530                                 |                      | no              | 3990            |  |                        |                 |              |
| 97          | W082B        | Golden Valley | 06N 20E 09 BCC |          | 10 28 78           | Creek                                      | Big Coulee at bridge                       | 2880                                 |                      | no              | 2800            |  |                        |                 |              |
| 98          | 46M0013      | Golden Valley | 06N 20E 19 AA  |          | 03 28 46           | Well                                       | Ten miles S of Ryegate                     |                                      |                      | yes             | 3700            |  |                        | 217KOTN         |              |
| 99          | 46M002       | Golden Valley | 11N 29E 01 CA  |          | 06 01 48           | Well                                       | Nine miles N of Muskeg River               |                                      |                      | yes             | 2980            |  |                        | 331KBBY         |              |
| 100         | 33AM008      | Muskeg        | 11N 23E 20 AB  |          | 07 01 33           | Well                                       | Thirty miles NW of Roundup                 |                                      |                      | yes             | 3920            |  |                        | 217LKOT         |              |
| 101         | 09M0013      | Muskeg        | 11N 23E 29 AC  |          | 07 01 33           | Well                                       | 2.5 miles SE of Lake Mason                 |                                      |                      | yes             | 3910            |  |                        | 320TSLP         |              |
| 102         | 49M0004      | Muskeg        | 10N 22E 09 AC  |          | 07 01 33           | Well                                       | 2.5 miles SE of Lake Mason                 |                                      |                      | yes             | 3600            |  |                        | 320AMSO         |              |
| 103         | 33AM007      | Muskeg        | 10N 25E 09 DO  |          | 02 20 33           | Well                                       |  |                                      |                      | yes             | 3600            |  |                        | 217KOTN         |              |
| 104         | 60M0007      | Muskeg        | 10N 28E 17 AA  |          | 10 05 50           | Well                                       | Four miles SW of Roundup                   | 22700                                |                      | yes             | 3110            |  |                        | 220TYLR         |              |
| 105         | 60M0008      | Muskeg        | 10N 28E 17 AA  |          | 10 05 50           | Well                                       | Stock pond below Willow Creek              | 970                                  |                      | no              | 3080            |  |                        | 217KOTN         |              |
| 106         | 60M0002      | Muskeg        | 10N 29E 18 BC  |          | 07 30 59           | Well                                       | Water drains from a pond below an oil well | 4600                                 |                      | yes             | 3000            |  |                        |                 |              |
| 107         | W081B        | Muskeg        | 10N 29E 23 DOD |          | 10 19 78           | Ditch                                      | One mile NE of Roundup                     | 20000                                |                      | yes             | 3570            |  |                        | 320AMSO         |              |
| 108         | 64M0018      | Muskeg        | 06N 26E 21 CA  |          | 10 05 64           | Well                                       |  |                                      |                      | yes             | 3570            |  |                        |                 |              |
| 109         | W082         | Muskeg        | 06N 25E 09     |          |                    | Creek                                      | South Willow Creek                         | 2300                                 |                      | no              | 3550            |  |                        | 211LKOT         |              |
| 110         | 64M0015      | Muskeg        | 06N 23E 21 BB  |          | 01 31 64           | Well                                       |  | 5030                                 |                      | yes             | 3650            |  |                        |                 |              |
| 111         | not on map   |               |                |          |                    |  |  |                                      |                      |                 |                 |  |                        |                 |              |
| 112         | 64M0001      | Muskeg        | 06N 23E 20 AA  |          | 08 14 08           | Well                                       |  |                                      |                      | yes             | 3680            |  |                        | 211EGLE         |              |
| 113         | 64M0014      | Muskeg        | 06N 23E 02 B   |          | 08 31 64           | Well                                       |  |                                      |                      | yes             | 3630            |  |                        | 217LKOT         |              |
| 114         | W083         | Muskeg        | 06N 25E 38 DAA |          | 10 18 78           | Creek                                      | Osage Creek on Highway 12                  | 6030                                 |                      | no              | 3650            |  |                        |                 |              |
| 115         | W081B        | Muskeg        | 06N 25E 23 CCC |          | 10 18 78           | Creek                                      | Half Bred Creek near mouth                 | 1250                                 |                      | no              | 3650            |  |                        |                 |              |
| 116         | W081B        | Muskeg        | 06N 26E 11 BBA |          | 10 19 78           | Creek                                      | Willow Creek one mile E of Roundup         | 3600                                 |                      | no              | 3550            |  |                        |                 |              |
| 117         | W085         | Muskeg        | 07N 25E 18 CAB |          | 10 19 78           | Creek                                      | Goulding Creek at its mouth                | 6600                                 |                      | no              |                 |  |                        |                 |              |
| 118         | W088         | Muskeg        | 07N 23E 35 CC  |          | 10 19 78           | Creek                                      | Dan Creek at bridge on Highway 12          | 3720                                 |                      | no              |                 |  |                        |                 |              |



ROUNDUP 1" x 2" Sheet (Con't)

Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref.<br>no. | Field<br>number | County      | Location<br>T. R. Sec. Twp. | Collection<br>Mo. Day Yr. Source | Flow or yield<br>Estimated<br>M. measured | Site description                                     | Specific<br>conductivity<br>at 25°C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name |
|--------------------|-----------------|-------------|-----------------------------|----------------------------------|---|--|-------------------------------------|----------------------|-----------------|-----------------|------------------------|----------------------|-----------------|--------------|
| 119                | W089            | Muskegon    | 06N 26E 19 ADA              | 10 18 76 Pond                    |   | Part of swamp that occupies most of T5N, R24E        | 8200                                | no                   | no              | 3800            |                        |                      |                 |              |
| 120                | W088            | Muskegon    | 06N 24E 33 AAD              | 10 19 76 Ditch                   |   | Drain from swamp in T5N, R24E                        | 5800                                | yes                  | yes             | 3950            |                        |                      |                 |              |
| 121                | W087            | Muskegon    | 05N 24E 33 CAC              | 10 19 76 Spring                  |   | Issues from swamp in T5N, R24E                       | 3850                                | no                   | no              | 3900            |                        |                      |                 |              |
| 122                | MBMG15          | Petroleum   | 14N 28E 29 C                | 09 07 76 Well                    |   | Domestic use except for drinking, water is corrosive | 6900                                | 18.5                 | no              | 2900            |                        |                      | 211EGLE         | Lowen        |
| 123                | MBMG16          | Petroleum   | 14N 28E 27                  | 08 76 Coulee                     |   | Above Flat Willow Creek                              | 5800                                | 15                   | no              | 2790            |                        |                      |                 |              |
| 124                | 58AK005         | Petroleum   | 13N 26E 04 BD               | 10 08 58 Well                    |   | Six miles NE of Roundup                              | 7830                                |                      | yes             | 3150            |                        |                      | 320AMSD         |              |
| 125                | MBMG28          | Petroleum   | 13N 26E 15                  | Reservoir                        |   | Thirty feet below a reservoir                        | 2810                                | 14                   | no              | 3200            |                        |                      |                 | Mika, Tony   |
| 126                | MBMG28          | Petroleum   | 13N 26E 15                  | Reservoir                        |   |  | 2120                                | 15                   | no              | 3200            |                        |                      |                 |              |
| 127                | MBMG27          | Petroleum   | 13N 26E 34 CA               | Creek                            |   | Flat Willow Creek                                    | 2440                                | 13.8                 | no              | 3200            |                        |                      |                 |              |
| 128                | MBMG31          | Petroleum   | 13N 26E 01                  | Well                             |   |  | 2380                                | 19                   | no              | 3000            | flowing                |                      |                 | Rand, Bob    |
| 129                | 38NM001         | Petroleum   | 13N 26E 22 D                | Well                             |   | Six miles SE of Petrolia Lake                        |                                     |                      | yes             | 3200            |                        |                      | 211EGLE         |              |
| 130                | MBMG26          | Petroleum   | 12N 27E 03 AA               | Well                             | 10 gpm                                    | Stock use  | 4930                                | 14                   | no              | 3190            |                        |                      |                 |              |
| 131                | MBMG24          | Petroleum   | 12N 27E 07                  | Well                             |   | Stock use  | 3250                                | 13.5                 | no              | 3250            |                        |                      |                 |              |
| 132                | MBMG24          | Petroleum   | 12N 27E 07                  | Well                             |   | Drainage use   | 1440                                | 13                   | no              | 3230            |                        |                      |                 |              |
| 133                | 80NM014         | Petroleum   | 12N 26E 06 DC               | Well                             |   | Approximately 4.5 miles NW of Roundup                |                                     |                      | yes             | 3880            |                        |                      | 320TSLP         |              |
| 134                | 46NM012         | Stillwater  | 04N 19E 13 DB               | 03 26 46 Well                    | 4 gpm (E)                                 | Fifteen miles S of Ryegate                           |                                     |                      | yes             | 4220            |                        |                      | 217KOTN         |              |
| 135                | 29NM001         | Stillwater  | 03N 19E 17 CD               | 11 28 Well                       | 290 gpm (E)                               | Eighteen miles SW of Ryegate                         |                                     |                      | yes             | 4500            |                        |                      | 331MD5N         | Crawford     |
| 136                | 54NM006         | Stillwater  | 03N 19E 07 DA               | 12 22 54 Well                    | SW of Ryegate                             |  | 4930                                |                      | yes             | 4380            |                        |                      | 337MSNC         |              |
| 137                | W089            | Sweet Grass | 03N 19E 09 CDD              | 10 27 76 Creek                   | 0.1 cfs (E)                               | Alaska Creek   | 770                                 | no                   | no              | 4480            |                        |                      |                 |              |
| 138                | W089            | Stillwater  | 03N 21E 18 BD               | Creek                            | 2 cfs (E)                                 | Lake Creek   | 23000                               |                      | yes             | 4000            |                        |                      |                 | Wilcox       |
| 139                | W087            | Stillwater  | 03N 21E 18 BD               | Truck                            |   | Stock track  | 7136                                |                      | yes             | 4000            |                        |                      |                 | Wilcox       |
| 140                | W0813           | Sweet Grass | 04N 14E 24 CDC              | 10 27 76 Creek                   | 10 cfs (E)                                | Sweet Grass Creek on U.S. 191                        | 296                                 |                      | yes             | 5000            |                        |                      |                 |              |
| 141                | W0812           | Sweet Grass | 04N 16E 28 DDA              | 10 27 76 Ditch                   | 2 cfs (E)                                 | Coyote Creek   | 190                                 |                      | no              | 4780            |                        |                      |                 |              |
| 142                | W0811           | Sweet Grass | 03N 15E 03 BCC              | 10 27 76 Ditch                   | 0.1 cfs (E)                               | Sweet Grass Lower Canal                              | 530                                 |                      | no              | 4450            |                        |                      |                 |              |
| 143                | W0810           | Sweet Grass | 03N 15E 14 BAA              | 10 27 76 Reservoir               |   | Glasston Lake (lower reservoir)                      | 304                                 |                      | yes             | 4500            |                        |                      |                 |              |
| 144                | 44NM001         | Sweet Grass | 04N 16E 15 DC               | 09 04 44 Well                    |   | Fourteen miles N of Billings                         |                                     |                      | yes             | 3690            |                        |                      | 320AMSD         |              |
| 145                | W0814           | Sweet Grass | 04N 14E 36 BDD              | 10 27 76 Creek                   | 3 cfs (E)                                 | Otter Creek  | 380                                 |                      | no              | 5000            |                        |                      |                 |              |
| 146                | W0815           | Sweet Grass | 03N 14E 11 CBD              | 10 27 76 Creek                   | 2 cfs (E)                                 | Wheeler Creek  | 420                                 |                      | no              | 5000            |                        |                      |                 |              |
| 147                | W089            | Stillwater  | 03N 21E 06 CB               | Seep                             |   | One mile S of Jan Haglund's place                    | 2000                                |                      | no              | 5000            |                        |                      |                 |              |
| 148                | W089            | Wheatland   | 11N 17E 34                  | 09 11 75 Creek                   |   | West Gibboney Creek                                  | 1190                                |                      | no              | 5000            |                        |                      |                 |              |

ROUNDUP 1' x 2' Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>number | County    | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E=estimated<br>M=measured | Site description                   | Specific<br>conductivity<br>at 25 C | Field<br>temp.<br>C | Lab<br>analysis | Altitude<br>ft. (L) | Static<br>water<br>level<br>ft. (L) | Well<br>depth<br>ft. (L) | Aquifer<br>code | Owner's name |
|-------------|-----------------|-----------|---------------------------|---------------------------------|-----------|--|------------------------------------|-------------------------------------|---------------------|-----------------|---------------------|-------------------------------------|--------------------------|-----------------|--------------|
| 149         | WOB28           | Whiteland | 11N 17E 33                | 09 11 75                        | Creek     | 1 cfs (E)                                  | Black Creek                        | 580                                 | no                  | no              | 5000                |                                     |                          |                 |              |
| 150         | WOB2            | Whiteland | 11N 15E 36 AC             | 09 11 75                        | Creek     | 5 cfs (E)                                  | Stephens Gulch                     | 980                                 | no                  | no              | 4800                |                                     |                          |                 |              |
| 151         | WOB3            | Whiteland | 11N 15E 32                | 09 11 75                        | Creek     | 0.5 cfs (E)                                | Roberts Creek                      | 740                                 | no                  | no              | 4800                |                                     |                          |                 |              |
| 152         | WOB4            | Whiteland | 10N 15E 09 B0             | 09 11 75                        | Reservoir |  | Rangeland and cropland             | 730                                 | no                  | no              | 4780                |                                     |                          |                 |              |
| 153         | WOB5            | Whiteland | 11N 15E 38 DD             | 09 11 75                        | Reservoir |  |                                    | 2110                                | no                  | no              | 4690                |                                     |                          |                 |              |
| 154         | WOB1            | Whiteland | 10N 18E 06 B              | 09 11 75                        | Reservoir |  | Rangeland                          | 750                                 | no                  | no              | 4640                |                                     |                          |                 |              |
| 155         | WOB28           | Whiteland | 10N 15E 34 AD             | 09 11 75                        | Creek     |  | Roberts Creek                      | 660                                 | no                  | no              | 4780                |                                     |                          |                 |              |
| 156         | WOB7            | Whiteland | 10N 18E 19                | 09 11 75                        | Reservoir |  | Line with alkali                   | 5170                                | no                  | no              | 4600                |                                     |                          |                 |              |
| 157         | WOB27           | Whiteland | 10N 18E 19                | 09 11 75                        | Well      |  | Water from well is turbid          | 740                                 | no                  | no              | 4650                |                                     |                          |                 |              |
| 158         | WOB27           | Whiteland | 10N 18E 18 A              | 09 11 75                        | Seep      |  | Rangeland seep                     | 340                                 | no                  | no              | 4610                |                                     |                          |                 |              |
| 159         | WOB10           | Whiteland | 10N 17E 02                | 09 11 75                        | Creek     | 1 cfs (E)                                  | Galloway Creek                     | 820                                 | no                  | no              | 4800                |                                     |                          |                 |              |
| 160         | WOB11           | Whiteland | 10N 17E 01                | 09 11 75                        | Creek     | 2 cfs                                      | Timber Creek                       | 520                                 | no                  | no              | 5000                |                                     |                          |                 |              |
| 161         | WOB12           | Whiteland | 10N 18E 08                | 09 11 75                        | Creek     | 1 cfs (E)                                  | Bercalls Creek                     | 570                                 | no                  | no              | 5000                |                                     |                          |                 |              |
| 162         | WOB14           | Whiteland | 10N 18E 11                | 09 11 75                        | Creek     | 5 cfs (E)                                  | Careless Creek                     | 450                                 | no                  | no              | 5000                |                                     |                          |                 |              |
| 163         | WOB13           | Whiteland | 10N 18E 09                | 09 11 75                        | Creek     | 1 cfs (E)                                  | Little Careless Creek              | 890                                 | no                  | no              | 4950                |                                     |                          |                 |              |
| 164         | WOB26           | Whiteland | 10N 18E 20 DA             | 09 11 75                        | Creek     | 4 cfs (E)                                  | Careless Creek                     | 910                                 | no                  | no              |                     |                                     |                          |                 |              |
| 165         | WOB21           | Whiteland | 10N 18E 21 BA             | 09 11 75                        | Creek     | 1 cfs (E)                                  | Drainage from dryland area         | 1400                                | no                  | no              |                     |                                     |                          |                 |              |
| 166         | WOB19           | Whiteland | 08N 15E 21 AC             | 09 11 75                        | Pool      |  | Saline pool near Harlowton airport | 9950                                | no                  | no              |                     |                                     |                          |                 |              |
| 167         | WOB20           | Whiteland | 08N 15E 22 BB             | 09 11 75                        | Drain     | 0.5 cfs (E)                                | Drainage from dryland farming area | 2920                                | no                  | no              |                     |                                     |                          |                 |              |
| 168         | WOB22           | Whiteland | 08N 15E 27                | 08 12 75                        | River     |  | Muskegon River at Harlowton        | 890                                 | no                  | no              |                     |                                     |                          |                 |              |
| 169         | WOB18           | Whiteland | 08N 15E 23                | 09 11 75                        | Creek     | 2 cfs (E)                                  | Anselope Creek                     | 1590                                | no                  | no              |                     |                                     |                          |                 |              |
| 170         | WOB29           | Whiteland | 08N 15E 11 A              | 09 11 75                        | Creek     |  | Anselope Creek                     | 7790                                | no                  | no              |                     |                                     |                          |                 |              |
| 171         | WOB15           | Whiteland | 08N 18E 17                | 09 11 75                        | Creek     |  | Roberts Creek                      | 2290                                | no                  | no              |                     |                                     |                          |                 |              |
| 172         | WOB30           | Whiteland | 07N 18E 29 A              | 09 11 75                        | Spring    |  | Weeping Wall, 3 miles E of Shawmut | 980                                 | no                  | no              |                     |                                     |                          |                 |              |
| 173         | WOB16           | Whiteland | 07N 15E 12                | 09 11 75                        | Creek     | 8 cfs (E)                                  | American Fork, rangeland           | 460                                 | no                  | no              |                     |                                     |                          |                 |              |
| 174         | WOB17           | Whiteland | 07N 15E 12                | 09 11 75                        | Creek     |  | Labo Creek                         | 550                                 | no                  | no              |                     |                                     |                          |                 |              |
| 175         | 58W0003         | Whiteland | 06N 14E 20 BAA            | 04 28 58                        | Well      | 5 cfs (E)                                  | Twelve miles SW of Harlowton       | 1440                                | yes                 | yes             | 4890                |                                     |                          | 217LKOT         |              |
| 176         | 58W0008         | Whiteland | 06N 14E 20 BAA            | 04 28 58                        | Well      |  | 0.5 miles NW of Fish Creek         | 1480                                | yes                 | yes             | 5090                |                                     |                          | 320AMSD         |              |
| 177         | 58W0009         | Whiteland | 06N 15E 02 BDC            | 04 29 58                        | Well      |  | 0.5 miles SE of American Fork      | 3590                                | yes                 | yes             | 4800                |                                     |                          | 320AMSD         |              |
| 178         | 57W0002         | Whiteland | 06N 15E 02 BDC            | 07 08 57                        | Well      |  | Nine miles S of Harlowton          | 1520                                | yes                 | yes             | 4810                |                                     |                          | 217KOTN         |              |

# ROUNDUP 1' x 2' Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map ref. | Field no. | County      | T               | R  | Sec | Fract | Loc     | Collection Date | Flow or yield<br>E = estimated<br>M = measured | Site description   | Specific conductivity at 25 °C | Field temp. °C | Lab analysis | Altitude (ft.) | Static water level depth (ft.) | Well depth (ft.) | Aquifer code | Owner's name  |
|----------|-----------|-------------|-----------------|----|-----|-------|---------|-----------------|--|--|--------------------------------|----------------|--------------|----------------|--------------------------------|------------------|--------------|---------------|
| 178      | 60A003    | Wheatland   | 06N 16E 31 CC   | 06 |     |       | 60 Well | 06 25 78 Creek  |  | Fifteen miles SE of Hallowtown   | 2040                           |                | yes          | 4300           |                                |                  | 211EGLE      |               |
| 180      | W0B14     | Yellowstone | 04N 25E 09 CDC  | 06 | 25  | 78    | Creek   | 06 25 78 Creek  |  | Small puddle   | 8000                           |                | yes          | 3950           |                                |                  |              |               |
| 181      | W0B15     | Yellowstone | 04N 25E 06 CD   | 06 | 25  | 78    | Pond    | 06 25 78 Pond   |  | Free miles E of Broadview  | 5750                           |                | yes          | 3950           |                                |                  |              |               |
| 182      | W0B36     | Yellowstone | 04N 24E 17 CC   | 10 | 04  | 78    | Creek   | 10 04 78 Creek  | no flow  | Unmanned creek   | 4880                           |                | yes          | 3800           |                                |                  |              |               |
| 183      | W0B16     | Yellowstone | 04N 24E 17 BB   | 06 | 25  | 78    | Creek   | 06 25 78 Creek  | 1.5 cfs (E)                                    |  | 3320                           |                | yes          | 3800           |                                |                  |              |               |
| 184      | W0B27     | Yellowstone | 04N 23E 12 DD   | 04 | 09  | 78    | Creek   | 04 09 78 Creek  | 0.5 cfs (E)                                    |  | 2810                           |                | no           | 3800           |                                |                  |              |               |
| 185      | W0B39     | Yellowstone | 04N 23E 24 BB   | 10 | 04  | 78    | Pond    | 10 04 78 Pond   | no flow  | Three miles E SE of Broadview  | 18300                          |                | no           | 3780           |                                |                  |              |               |
| 186      | W0B28     | Yellowstone | 04N 23E 10 D    | 04 | 09  | 78    | Seep    | 04 09 78 Seep   | < 1 gpm  | Seep drainage 1.5 miles E of Broadview   | 7608                           |                | yes          | 3860           |                                |                  |              |               |
| 187      | W0B40     | Yellowstone | 04N 23E 06 DD   | 10 | 04  | 78    | Pond    | 10 04 78 Pond   | no flow  | One mile N of Broadview  | 73600                          |                | yes          | 4900           |                                |                  |              |               |
| 188      | W0B54     | Yellowstone | 04N 23E 28 CC   | 10 | 13  | 78    | Pond    | 10 13 78 Pond   | no flow  | Just above a saline seep   | 5650                           |                | no           | 3620           |                                |                  |              |               |
| 189      | W0B29     | Yellowstone | 04N 23E 08 DD   |    |     |       | Creek   |                 | < 0.5 cfs (E)                                  | A-4 colored 7 miles S of Broadview   | 9700                           |                | no           | 3810           |                                |                  |              |               |
| 190      | W0B30     | Yellowstone | 04N 23E 08 DD   | 10 | 13  | 78    | Creek   | 10 13 78 Creek  | 2 cfs (E)                                      | Comanche Creek, banks lined with salt  | 2460                           |                | yes          | 3810           |                                |                  | 221MRSN      |               |
| 191      | W0B31     | Yellowstone | 04N 23E 18 BD   | 05 | 28  | 40    | Well    | 05 28 40 Well   | no flow  | One half mile N of crossroads  | 6320                           |                | no           | 3780           |                                |                  |              |               |
| 192      | W0B37     | Yellowstone | 04N 24E 34 CB   | 10 | 04  | 78    | Seep    | 10 04 78 Seep   | no flow  | Small creek one quarter mile S of crossroads                                   | 6320                           |                | no           | 3660           |                                |                  |              |               |
| 193      | W0B36     | Yellowstone | 03N 24E 03 BB   | 10 | 04  | 78    | Creek   | 10 04 78 Creek  | 15 gpm (E)                                     |  | 4080                           |                | no           | 3660           |                                |                  |              |               |
| 194      | W0B25     | Yellowstone | 03N 24E 10 CB   | 06 | 25  | 78    | Spring  | 06 25 78 Spring | Small seep                                     |  | 2910                           |                | no           | 3770           |                                |                  |              |               |
| 195      | W0B26     | Yellowstone | 03N 24E 11 CC   | 06 | 25  | 78    | Ditch   | 06 25 78 Ditch  |  |  | 4194                           |                | yes          | 3160           |                                |                  |              |               |
| 196      | W0B13     | Yellowstone | 03N 28E 11 CCC  | 06 | 25  | 78    | Creek   | 06 25 78 Creek  |  | North Fork Crooked Creek   | 7245                           |                | yes          | 4250           | 18                             | 23               | 110CLVM      |               |
| 197      | W0A0231   | Silverwater | 03N 20E 02 A0BA | 04 | 08  | 78    | Well    | 04 08 78 Well   | 4 gpm (E)                                      | Bickley Test Area - Rapelle R10-B2-74  | 7112                           |                | yes          |                |                                |                  | 320TLSP      |               |
| 198      | W0A0017   | Sweet Grass | 03N 21E 05 BC   | 03 | 27  | 48    | Well    |                 |  | Twenty five miles NW of Billings   |                                |                | yes          |                |                                |                  |              |               |
| 199      | W0A0573   | Yellowstone | 03N 23E 04 DD   | 04 | 09  | 78    | Creek   | 04 09 78 Creek  | 1 cfs (E)                                      | Brown Creek at bridge  | 7547                           |                | yes          |                |                                |                  |              |               |
| 200      | W0A0230   | Silverwater | 04N 20E 35 ACAA | 04 | 08  | 78    | Well    | 04 08 78 Well   |  | Bickley Test Area - Rapelle R13-B5-74  | 5745                           |                | yes          |                | 36                             | 53               | 110CLVM      |               |
| 201      | W0A0232   | Silverwater | 04N 20E 36 CCBA | 04 | 08  | 78    | Well    | 04 08 78 Well   |  | Bickley Test Area - Rapelle R36-B21-75   | 5436                           |                | yes          |                | 30                             | 38               | 110CLVM      |               |
| 202      | W0A0233   | Silverwater | 04N 21E 32 ACAA | 04 | 08  | 78    | Well    | 04 08 78 Well   |  | Hogland Test Area - Rapelle R2-H2-74   | 12580                          |                | yes          | 3680           |                                | 18               | 110CLVM      |               |
| 203      | W0A0017   | Musselshell | 05N 23E 20 AA   | 04 | 08  | 64    | Well    |                 |  |  | 4090                           |                | yes          |                |                                |                  | 320AMSD      |               |
| 204      | W300442   | Fergus      | 12N 22E 13 DD   | 08 | 15  | 73    | Spring  | 08 15 73 Spring | 1 gpm (E)                                      | Durfee Spring, 4.5 miles S of Bar Ranch  | 2636                           |                | yes          | 4500           |                                |                  | 331MDSN      | Formerly 1178 |
| 205      | W0B4      | Musselshell | 07N 25E 07 CCD  | 10 | 19  | 78    | Creek   | 10 19 78 Creek  | .08 cfs (E)                                    | Convent Creek on Highway 12  | 6465                           |                | no           | 3150           |                                |                  |              | Formerly 1288 |
| 206      | W0B30     | Yellowstone | 03N 23E 08 BAA  | 06 | 25  | 78    | Creek   | 06 25 78 Creek  | no flow  | Convent Creek in Yellow Water Creek, slight sample taken in a saline seep area | 43330                          | 13             | no           | 3800           |                                |                  |              | Formerly 1888 |

## Chemical Analyses

| Mus. ref. (n) | Location T R Sec Trect | Collection date Mo Day Yr | Source    | Calcium (Ca) | Magnesium (Mg) | Sodium (Na) | Potassium (K) | Iron (Fe) | Manganese (Mn) | Silica (SiO <sub>2</sub> ) | Sulfate (SO <sub>4</sub> ) | Carbonate (CO <sub>3</sub> ) | Chloride (Cl) | Sulfate (SO <sub>4</sub> ) |
|---------------|------------------------|---------------------------|-----------|--------------|----------------|-------------|---------------|-----------|----------------|----------------------------|----------------------------|------------------------------|---------------|----------------------------|
| 7             | 14N 18E 18 BDB         | 03 28 67                  | Well      | 39           | 25             | 20*         |               | .22       |                | 171                        |                            | 4                            | 74            |                            |
| 34            | 13N 17E 06 CDC         | 03 28 67                  | Well      | 56           | 10             | 73*         |               | .75       |                | 220                        |                            | 3                            | 144           |                            |
| 63            | 09N 20E 31 BD          | 04 01 65                  | Well      | 8            | 3              | 1100        | 10            |           |                | 1850                       | 180                        | 270                          | 500           |                            |
| 67            | 08N 20E 14 CC          | 03 17 65                  | Well      | 9            | 3              | 790         | 10            |           |                | 1930                       |                            | 130                          |               |                            |
| 68            | 08N 21E 29 CA          | 04 05 49                  | Well      | 470          | 120            | 730*        |               |           |                | 885                        |                            | 370                          | 2100          |                            |
| 69            | 08N 21E 28 CB          | 04 29 64                  | Well      | 570          | 110            | 560*        |               |           |                | 485                        |                            | 300                          | 2200          |                            |
| 71            | 07N 22E 01 BBC         | 10 28 76                  | Creek     | 92           | 64             | 185         |               | 5.6       |                | 752                        |                            | 12                           | 880           |                            |
| 72            | 07N 22E 23 DD          | 04 28 75                  | Pond      | 46.1         | 11.6           | 1780        |               |           |                | 1080                       |                            | 10                           | 19.5          | 3020                       |
| 73            | 07N 22E 26 DD          | 04 28 75                  | Pond      | 10.3         | 13.4           | 1530        |               |           |                | 905                        |                            | 33                           | 2560          |                            |
| 74            | 07N 22E 27 CA          | 09 08 60                  | Well      | 11           | 2              | 2100*       |               |           |                | 3660                       |                            | 1200                         | 15            |                            |
| 75            | 07N 22E 27 CA          | 09 08 60                  | Well      | 570          | 120            | 380*        |               |           |                | 305                        |                            | 160                          | 2200          |                            |
| 76            | 07N 22E 26 DA          | 10 28 76                  | Well      | 19.8         | 5.1            | 1415        | 5             |           |                | 855                        | 17                         | 36                           | 2260          |                            |
| 83            | 07N 20E 18 BDC         | 10 28 76                  | Creek     | 488          | 190            | 590         | 72            |           |                | 226                        |                            | 335                          | 2800          |                            |
| 86            | 08N 20E 07 DD          | 05 09 75                  | Creek     | 39.4         | 17.3           | 46          | 2             |           |                | 185                        |                            | 6.5                          | 110           |                            |
| 88            | 08N 20E 03 CA          | 05 09 75                  | Creek     | 57           | 26.5           | 63          | 2             |           |                | 211                        |                            | 6.5                          | 190           |                            |
| 92            | 06N 22E 11 C           | 09 08 75                  | River     | 85           | 53             | 119         | 3.6           |           |                | 296                        |                            | 10                           | 420           |                            |
| 94            | 06N 22E 28 DDC         | 02 09 32                  | Well      | 43           | 17             | 4700*       |               |           |                | 775                        |                            | 7000                         |               |                            |
| 98            | 05N 20E 19 AA          | 03 26 46                  | Well      |              |                | 2300*       |               |           |                | 1830                       | 109                        | 2400                         |               |                            |
| 99            | 11N 29E 01 CA          | 06 01 48                  | Well      | 290          | 54             | 2000*       |               |           |                | 280                        | 109                        | 1300                         | 2800          |                            |
| 100           | 11N 23E 20 AA8         | 07 01 33                  | Well      | 15           |                | 280*        |               |           |                | 800                        |                            | 11                           | 140           |                            |
| 101           | 11N 23E 29 A           |                           | Well      | 280          | 79             | 1000*       |               |           |                | 305                        |                            | 7800                         | 5900          |                            |
| 102           | 10N 22E 09 AC          | 49                        | Well      | 64           | 39             | 1900*       |               |           |                | 4850                       | 121                        | 160                          |               |                            |
| 103           | 10N 25E 09 DD          | 02 20 33                  | Well      |              |                | 1200*       |               |           |                | 1220                       |                            | 1200                         | 45            |                            |
| 104           | 10N 28E 17 AA          | 10 60                     | Well      | 400          | 60             | 8100*       |               |           |                | 805                        |                            | 2700                         | 9600          |                            |
| 106           | 10N 29E 18 BD          | 07 30 68                  | Well      | 3            | 2              | 1200*       |               |           |                | 1860                       | 185                        | 570                          | 190           |                            |
| 107           | 10N 29E 23 DDD         | 10 19 76                  | Ditch     | 224          | 58             | 5490        | 51            |           |                | 1586                       |                            | 2069                         | 6180          |                            |
| 108           | 09N 26E 21 CA          | 10 05 64                  | Well      | 170          | 26             | 4400*       |               |           |                | 813                        |                            | 2100                         | 6200          |                            |
| 110           | 09N 23E 21 BB          | 01 31 64                  | Well      | 9            | 2              | 1500*       |               |           |                | 2800                       | 185                        | 460                          |               |                            |
| 112           | 09N 23E 20 AA          | 08 14 68                  | Well      | 2            | 10             | 830*        |               |           |                | 514                        |                            | 64                           | 870           |                            |
| 113           | 08N 24E 02 B           | 08 31 64                  | Well      | 6            | 12             | 2300*       |               |           |                | 2310                       | 337                        | 1700                         | 140           |                            |
| 120           | 05N 24E 33 AA0         | 10 19 76                  | Ditch     | 273          | 189            | 1030        | 13            |           |                | 470                        |                            | 274                          | 2860          |                            |
| 124           | 13N 26E 04 BD          | 10 06 58                  | Well      | 83           | 37             | 2000*       |               |           |                | 671                        | 60                         | 190                          | 3700          |                            |
| 129           | 13N 28E 22 D           | 09 18 38                  | Well      |              |                | 770*        |               |           |                | 1000                       | 108                        | 180                          | 410           |                            |
| 133           | 12N 25E 05 DC          |                           | Well      | 60           | 34             | 520*        |               |           |                | 440                        |                            | 18                           | 1000          |                            |
| 134           | 04N 19E 13 DB          | 03 26 46                  | Well      |              |                | 1700*       |               |           |                | 1860                       | 96                         | 1400                         |               |                            |
| 135           | 03N 19E 17 CD          | 11 29                     | Well      | 350          | 64             | 330*        |               |           |                | 350                        |                            | 220                          | 1300          |                            |
| 136           | 03N 19E 07 DA          | 12 22 54                  | Well      | 590          | 130            | 530*        |               |           |                | 800                        |                            | 340                          | 2100          |                            |
| 138           | 03N 21E 18 BD          | 04 21 76                  | Creek     | 321          | 1787           | 2660        | 19            |           |                | 195                        | 61                         | 365                          | 13000         |                            |
| 139           | 03N 21E 18 CB          | 04 21 76                  | Tank      | 461          | 448            | 1000        | 9             |           |                | 610                        |                            | 138                          | 4200          |                            |
| 140           | 04N 14E 24 CBC         | 10 27 76                  | Creek     | 37.4         | 11.3           | 11.0        | 1.8           |           |                | 189                        |                            | 1.3                          | 14            |                            |
| 143           | 03N 15E 14 BAA         | 10 27 76                  | Reservoir | 30.9         | 10.4           | 18.0        | 3.1           |           |                | 165                        |                            | 3.2                          | 2             |                            |
| 144           | 04N 16E 15 DC          | 09 04 44                  | Well      | 270          | 48             | 500*        |               |           |                | 325                        |                            | 75                           | 1500          |                            |
| 175           | 06N 14E 20 BAA         | 04 29 56                  | Well      | 8            | 7              | 480*        |               |           |                | 740                        | 84                         | 53                           | 260           |                            |
| 176           | 06N 14E 20 BAA         | 04 29 56                  | Well      | 12           | 40             | 300*        |               |           |                | 645                        |                            | 39                           | 260           |                            |
| 177           | 06N 15E 02 BDC         | 04 26 56                  | Well      | 240          | 130            | 520*        |               |           |                | 465                        |                            | 67                           | 1700          |                            |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated.

\* Values reported as sodium plus potassium

## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|---------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 7                  |                | .4              |           | 10                  |   |                                | 199                                       | 140   |                               | USGS                 | 121                    | 217KOTN         | No                            | 64M0021       |
| 34                 |                | .7              |           | 10                  |   |                                | 179                                       | 180   |                               | USGS                 | 195                    | 217KOTN         | No                            | 64M0020       |
| 63                 |                |                 | 8.8       |                     |   | 2884                           | 32  | 1650  | 84.2                          | Unknown              |                        | 320AMSD         | No                            | 85M0041       |
| 67                 |                |                 | 8.3       |                     |   |                                | 35  | 1580  | 58.3                          | Unknown              |                        | 211MRSN         | No                            | 85M0040       |
| 68                 |                |                 | 6.9       |                     |   |                                | 1670                                      | 570   |                               | Unknown              |                        | 320AMSD         | No                            | 49M0003       |
| 69                 |                |                 |           |                     |   |                                | 1880                                      | 398   |                               | Unknown              |                        | 320AMSD         | No                            | 64M0018       |
| 71                 | <.01           |                 | 8.1       |                     | 1515  | 1148                           | 495                                       | 215   | 3.2                           | WQB                  |                        |                 | No                            | 76W2854       |
| 72                 | .12            |                 | 8.37      | 10                  | 6450  | 5948                           | 163                                       | 865   | 60.7                          | WQB                  |                        |                 | No                            | 75W0600       |
| 73                 | .32            |                 | 8.16      | 10                  | 5600  | 5056                           | 82  | 742   | 73.5                          | WQB                  |                        |                 | No                            | 75W0601       |
| 74                 |                |                 | 7.9       |                     |   |                                | 36  | 3000  |                               | Unknown              |                        | 217LKOT         | No                            | 60M0004       |
| 75                 |                |                 | 7.9       |                     |   |                                | 1920                                      | 250   |                               | Unknown              |                        | 331CRLS         | No                            | 60M0010       |
| 76                 | .56            |                 | 8.4       |                     | 5730  | 4179                           | 70  | 729   | 73.6                          | WQB                  |                        |                 | No                            | 76W2852       |
| 83                 | .49            |                 | 7.8       |                     | 5447  | 4387                           | 2000                                      | 185   | 5.7                           | WQB                  |                        |                 | No                            | 76W2650       |
| 86                 | .37            | .24             | 7.87      |                     | 556   | 408                            | 172                                       | 152   | 1.5                           | WQB                  |                        |                 | Yes                           | 75W0627       |
| 88                 | .25            | .25             | 7.88      |                     | 831   | 556                            | 251                                       | 173   | 1.7                           | WQB                  |                        |                 | Yes                           | 75W0633       |
| 92                 | .02            |                 | 8.29      | 18                  | 1224  | 987                            | 430                                       | 243   | 2.5                           | WQB                  |                        |                 | No                            | 75W1905       |
| 94                 |                |                 |           |                     |   | 177                            | 636                                       |   |                               | Unknown              |                        | 211FRNR         | No                            | 32M0003       |
| 98                 |                |                 |           |                     |   |                                | 1680                                      |   |                               | Unknown              |                        | 217KOTN         | No                            | 46M0013       |
| 99                 |                |                 | 8.1       |                     |   | 946                            | 411                                       |   |                               | Unknown              |                        | 331K88Y         | No                            | 46M0002       |
| 100                |                |                 |           |                     |   | 37                             | 492                                       |   |                               | Unknown              |                        | 217LKOT         | No                            | 33M0008       |
| 101                |                |                 |           |                     |   |                                | 1020                                      | 250   |                               | Unknown              |                        | 320TSLP         | No                            | 00M0013       |
| 102                |                |                 | 7.5       |                     |   |                                | 320                                       | 4180  |                               | Unknown              |                        | 320AMSD         | No                            | 49M0004       |
| 103                |                |                 |           |                     |   |                                |   | 1000  |                               | Unknown              |                        | 217KOTN         | No                            | 33M0007       |
| 104                |                |                 | 7.4       |                     |   | 1250                           | 660                                       |   |                               | Unknown              |                        | 320TYLR         | No                            | 60M0007       |
| 106                |                |                 | 8.9       | 58.3                |   | 16                             | 1660                                      |   |                               | Unknown              |                        | 217KOTN         | No                            | 68M0002       |
| 107                | .02            |                 | 7.9       |                     | 20010                                       | 14850                          | 800                                       | 1300  | 64.5                          | WQB                  |                        |                 | Yes                           | 76W2597       |
| 108                |                |                 | 7.7       |                     |   | 532                            | 667                                       |   |                               | Unknown              |                        | 320AMSD         | No                            | 64M0018       |
| 110                |                |                 | 8.8       |                     |   | 31                             | 2600                                      |   |                               | Unknown              |                        | 217LKOT         | No                            | 64M0015       |
| 112                |                |                 | 7.8       |                     |   | 46                             | 422                                       |   |                               | Unknown              |                        | 211EGLE         | No                            | 88M0001       |
| 113                |                |                 | 9.2       |                     |   | 84                             | 2460                                      |   |                               | Unknown              |                        | 217LKOT         | No                            | 64M0014       |
| 120                | .03            |                 | 8.2       |                     | 5900  | 4870                           | 1460                                      | 385   | 11.7                          | WQB                  |                        |                 | No                            | 76W2592       |
| 124                |                |                 | 8.8       |                     |   | 360                            | 650                                       |   |                               | Unknown              |                        | 320AMSD         | No                            | 58M0006       |
| 129                |                |                 |           |                     |   |                                | 1000                                      |   |                               | Unknown              |                        | 211EGLE         | No                            | 38M0001       |
| 133                |                |                 |           |                     |   |                                | 290                                       | 361   |                               | Unknown              |                        | 320TSLP         | No                            | 00M0014       |
| 134                |                |                 | 8.3       |                     |   |                                | 1690                                      |   |                               | Unknown              |                        | 217KOTN         | No                            | 46M0012       |
| 135                |                |                 |           | 69.4                |   |                                | 1140                                      | 287   |                               | Unknown              |                        | 331MCSN         | No                            | 29M0001       |
| 136                |                |                 | 7.5       |                     |   |                                | 2010                                      | 492   |                               | Unknown              |                        | 337MSNC         | No                            | 54M0006       |
| 138                | .26            |                 | 8.98      | 15                  | 23000                                       | 18410                          | 8200                                      | 261   | 12.7                          | WQB                  |                        |                 | No                            | 76W0659       |
| 139                | .24            |                 | 7.64      | 11                  | 7336  | 6891                           | 3000                                      | 500   | 7.9                           | WQB                  |                        |                 | No                            | 76W0658       |
| 140                | .08            |                 | 8.2       |                     | 296   | 170                            | 140                                       | 155   | .4                            | WQB                  |                        |                 | No                            | 76W2654       |
| 143                | <.01           |                 | 8.1       |                     | 304   | 167                            | 120                                       | 135   | .7                            | WQB                  |                        |                 | No                            | 76W2653       |
| 144                |                |                 |           |                     |   |                                | 884                                       | 267   |                               | Unknown              |                        | 320AMSD         | No                            | 44M0001       |
| 175                |                |                 | 8.3       |                     |   | 49                             | 747                                       |   |                               | Unknown              |                        | 217LKOT         | No                            | 56M0003       |
| 176                |                |                 | 6.3       |                     |   |                                | 195                                       | 529   |                               | Unknown              |                        | 320AMSD         | No                            | 56M0008       |
| 177                |                |                 | 7.8       |                     |   |                                | 1130                                      | 381   |                               | Unknown              |                        | 320AMSD         | No                            | 56M0009       |

## Chemical Analyses

| Manu-<br>rel.<br>no | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|---------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 178                 | 06N 15E 02 BDC            | 07 08 57                        | Well   |                 |                        | 410*           |                       |              |                        |                               | 200                                     | 217                                  | 83               | 240                           |
| 179                 | 06N 16E 31 CC             | 08 08 60                        | Well   | 6               | 2                      | 570*           |                       |              |                        |                               | 1200                                    | 59                                   | 83               | 54                            |
| 180                 | 04N 25E 09 CDC            | 06 25 76                        | Creek  | 345             | 590                    | 1060           | 9.5                   |              |                        |                               | 470                                     |                                      | 399              | 4480                          |
| 181                 | 04N 25E 06 CD             | 06 25 76                        | Pool   | 359             | 494                    | 424            | 26.2                  |              |                        |                               | 544                                     |                                      | 293              | 2900                          |
| 183                 | 04N 24E 17 BB             | 06 25 76                        | Creek  | 138             | 188                    | 386            | 7.6                   |              |                        |                               | 486                                     |                                      | 278              | 1036                          |
| 186                 | 04N 23E 10 D              | 04 09 76                        | Seep   | 337             | 456                    | 1140           | 13.0                  |              |                        |                               | 571                                     |                                      | 360              | 4100                          |
| 187                 | 04N 23E 05 DD             | 10 04 76                        | Pond   | 320             | 7610                   | 29000          | 125                   |              |                        |                               | 508                                     |                                      | 3300             | 71000                         |
| 190                 | 03N 23E 08 DD             | 04 09 76                        | Creek  | 401             | 869                    | 2950           | 13.4                  |              |                        |                               | 532                                     |                                      | 480              | 9650                          |
| 191                 | 03N 23E 18 BD             | 05 28 40                        | Well   |                 |                        | 1300*          |                       |              |                        |                               | 3120                                    |                                      | 280              |                               |
| 195                 | 03N 24E 11 CC             | 04 09 76                        | Ditch  | 188             | 133                    | 700            | 7.6                   |              |                        |                               | 607                                     | 7                                    | 279              | 1550                          |
| 196                 | 03N 28E 11 CCC            | 06 25 76                        | Creek  | 36.1            | 6.2                    | 500            | 8.2                   |              |                        |                               | 682                                     |                                      | 34               | 569                           |
| 197                 | 03N 20E 02 AD8A           | 04 08 76                        | Well   | 440             | 490                    | 920            | 14                    | .20          | .05                    | 7.4                           | 326                                     |                                      | 38               | 4611                          |
| 198                 | 03N 21E 05 BC             | 03 27 46                        | Well   | 510             | 130                    | 340*           |                       |              |                        |                               | 330                                     |                                      | 57               | 1900                          |
| 199                 | 03N 23E 04 DD             | 04 09 76                        | Creek  | 313             | 301                    | 1300           | 8.8                   |              |                        |                               | 450                                     | 4                                    | 196              | 3960                          |
| 200                 | 04N 20E 35 ACAA           | 04 08 76                        | Well   | 376             | 324                    | 720            | 8.4                   | .32          | .02                    | 7.6                           | 219                                     |                                      | 24               | 3540                          |
| 201                 | 04N 20E 36 CC8A           | 04 08 76                        | Well   | 472             | 356                    | 460            | 16                    | 12           | .11                    | 7.8                           | 318                                     |                                      | 302              | 2759                          |
| 202                 | 04N 21E 32 ACAA           | 04 08 76                        | Well   | 196             | 1064                   | 2250           | 14                    | .20          | .18                    | 7.1                           | 498                                     |                                      | 280              | 8644                          |
| 203                 | 09N 23E 20 AA             | 04 08 64                        | Well   | 42              | 8                      | 1300*          |                       |              |                        |                               | 2680                                    |                                      | 470              | 110                           |
| 204                 | 12N 22E 13 DD             | 08 15 73                        | Spring | 533             | 165                    | 14             | 3.2                   | .09          | .02                    | <.1                           | 59                                      |                                      | 4.1              | 1872                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## of Selected Waters

| Meo<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C | Lab<br>specific<br>conductance<br>(umho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|---------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 178                |                |                 | 9.4       |                     |   |                                |   | 526   |                               | Unknown              |                        | 217KQTN         | No                            | 57M0002       |
| 179                |                |                 | 8.2       |                     |   |                                | 23  | 1080  |                               | Unknown              |                        | 211EGLE         | No                            | 60M0003       |
| 180                | .13            | .16             | 7.85      | 14.1                | 8000  | 7115                           | 3290                                      | 385   | 8.0                           | WQ8                  |                        |                 | Yes                           | 76W1221       |
| 181                | .02            | .06             | 7.45      | 14.8                | 5760  | 4765                           | 2930                                      | 447   | 3.4                           | WQ8                  |                        |                 | Yes                           | 76W1222       |
| 183                | 1.6            | .24             | 8.0       | 14                  | 3320  | 2255                           | 1040                                      | 398   | 5.2                           | WQ8                  |                        |                 | Yes                           | 76W1223       |
| 185                | .5             |                 | 7.99      | 15                  | 7608  | 6978                           | 2720                                      | 468   | 9.5                           | WQ8                  |                        |                 | No                            | 76W0571       |
| 187                |                |                 | 7.7       |                     | 73600                                       | 111600                         | 32100                                     | 415   | 70.4                          | WQ8                  |                        |                 | Yes                           | 76W2510       |
| 190                | 1              |                 | 7.8       | 20                  | 12450                                       | 14900                          | 4580                                      | 438   | 19.0                          | WQ8                  |                        |                 | No                            | 76W0572       |
| 191                |                |                 |           |                     |   |                                |   | 2560  |                               | Unknown              |                        | 221MR5N         | No                            | 40M0002       |
| 195                | .3             |                 | 8.3       | 17                  | 4184  | 3452                           | 968                                       | 500   | 9.8                           | WQ8                  |                        |                 | No                            | 76W0570       |
| 196                | .08            | .85             | 8.25      | 13.8                | 2344  | 1490                           | 115                                       | 559   | 20.3                          | WQ8                  |                        |                 | Yes                           | 76W1220       |
| 197                | 5.704          | .3              | 7.63      | 10.5                | 7112  | 6887                           | 3120                                      | 286   | 7.2                           | MBMG                 | 23                     | 110CLVM         | Yes                           | 76M0231       |
| 198                |                |                 |           |                     |   |                                | 1810                                      | 271   |                               | Unknown              |                        | 320TSLP         | No                            | 68M0015       |
| 199                | 3.2            |                 | 8.27      | 17                  | 7547  | 6555                           | 2020                                      | 375   | 12.8                          | WQ8                  |                        |                 | No                            | 76W0573       |
| 200                | .865           | .4              | 7.91      | 11                  | 5745  | 5109                           | 2270                                      | 179   | 6.6                           | MBMG                 | 53                     | 110CLVM         | Yes                           | 76M0230       |
| 201                | 17.169         | .1              | 7.75      | 12                  | 5438  | 4547                           | 2640                                      | 261   | 3.9                           | MBMG                 | 38                     | 110CLVM         | Yes                           | 76M0232       |
| 202                | 26.431         | .5              | 7.95      | 7                   | 12680                                       | 12710                          | 4870                                      | 408   | 14.0                          | MBMG                 | 18                     | 110CLVM         | Yes                           | 76M0233       |
| 203                |                |                 | 8.4       |                     |   |                                | 138                                       | 2200  |                               | Unknown              |                        | 320AMSO         | No                            | 64M0017       |
| 204                | 1.8            | 8.08            |           |                     | 2535  | 2622                           | 2000                                      | 48  | .1                            | MBMG                 |                        | 331MOSN         | No                            | 73M0842       |

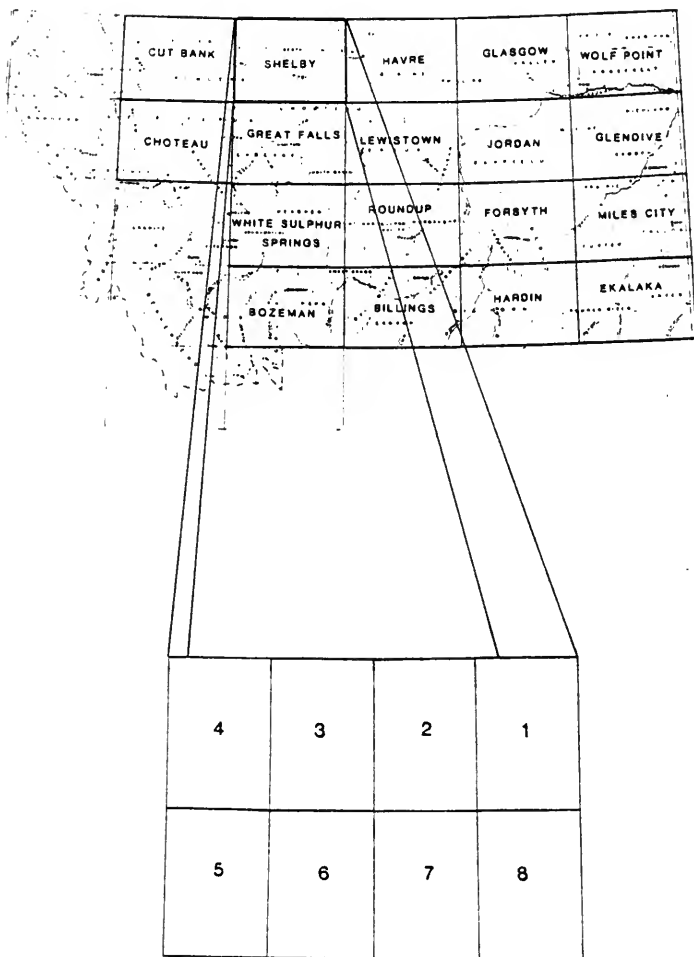
## ROUNDUP 1° x 2° Sheet

## Trace Elements Analysis Sheet

| Map<br>ref | Location<br>T R Sec Tract | Alu-<br>minum<br>(mg/l) | Anti-<br>mony<br>(mg/l) | Ar-<br>senic<br>(µg/l) | Beryl-<br>lium<br>(µg/l) | Bor-<br>on<br>(mg/l) | Cad-<br>mium<br>(mg/l) | Chro-<br>mium<br>(mg/l) | Cop-<br>per<br>(mg/l) | Lead<br>(mg/l) | Lith-<br>ium<br>(mg/l) | Mer-<br>cury<br>(µg/l) | Nickel<br>(mg/l) | Phosphate<br>[Total<br>dissolved]<br>(µg/l) | Selen-<br>ium<br>(µg/l) | Silver<br>(mg/l) | Stron-<br>tium<br>(mg/l) | Tin<br>(mg/l) | Zinc<br>(mg/l) | Lab<br>number |
|------------|---------------------------|-------------------------|-------------------------|------------------------|--------------------------|----------------------|------------------------|-------------------------|-----------------------|----------------|------------------------|------------------------|------------------|---|-------------------------|------------------|--------------------------|---------------|----------------|---------------|
| 86         | 06N 20E 07 DO             |                         | 7                       | 08                     | 01                       |                      |                        |                         | 05                    |                |                        |                        |                  |   |                         |                  |                          |               |                | 17 75N0627    |
| 88         | 06N 20E 03 CA             |                         | 3                       | .10                    | .004                     |                      |                        |                         | .03                   |                |                        |                        |                  |   |                         |                  |                          |               |                | 11 75N0633    |
| 107        | 10N 25E 23 DOD            |                         | <1.0                    |                        |                          | .15                  | .016                   | <.05                    | .02                   | <.05           | .03                    | <.2                    | .11              |   | 7                       | .02              | 7.8                      |               |                | <.01 76M121   |
| 180        | 04N 25E 09 CUC            |                         | 7                       | <1.0                   | .27                      | .013                 | <.05                   | .01                     | <.05                  | .03            | <.2                    | .08                    |                  |   | <1.0                    |                  |                          |               |                | <.01 76M122   |
| 181        | 04N 25E 08 CO             |                         |                         |                        |                          |                      |                        |                         |                       |                |                        |                        |                  |   |                         |                  |                          |               |                |               |
| 183        | 04N 24E 17 BB             |                         | 3                       | <1.0                   | <.10                     | .007                 | <.05                   | .01                     | <.05                  | .03            | <.2                    | <.05                   |                  | 19  |                         | .16              | 10                       |               |                | <.01 76M123   |
| 187        | 04N 23E 05 DD             |                         | <1.0                    |                        |                          |                      |                        |                         |                       |                |                        |                        |                  | .68   |                         |                  |                          |               |                | 76M2510       |
| 196        | 03N 28E 11 CCC            |                         | 6                       | <1.0                   | .16                      | <.001                | <.05                   | .01                     | <.05                  | .01            | <.2                    | <.05                   |                  | 1.0   |                         |                  |                          |               |                | <.01 76M220   |
| 197        | 03N 20E 02 AD8A           | .15                     | .4                      | <2.0                   | <.5                      | .8                   | .02                    | .01                     | .02                   | .16            | .70                    | <.3                    | .09              | .013  | 33                      |                  | 7.3                      | 58            |                | 76M220        |
| 200        | 04N 20E 35 AC8A           | .27                     | <.2                     | <2.0                   | <.5                      | 7                    | .01                    | .01                     | .02                   | .13            | .48                    | <.3                    | .07              | .026  | 24                      |                  | 7.8                      | .40           | .05            | 76M230        |
| 201        | 04N 20E 38 CC8A           | .08                     | <.2                     | <2.0                   | <.5                      | 8                    | .01                    | .02                     | .02                   | .14            | .48                    | <.3                    | .08              | .016  | 1220                    |                  | 8.7                      | 4             | .03            | 76M232        |
| 202        | 04N 21E 32 AC8A           | .27                     | .43                     | <2.0                   | <.5                      | 7                    | .01                    | .03                     | .04                   | .23            | .84                    | <.3                    | .14              | .028  | 1800                    |                  | 14.8                     | 1.04          | .05            | 76M233        |



# LOCATION BASE MAP



SHELBY 1° x 2° SHEET

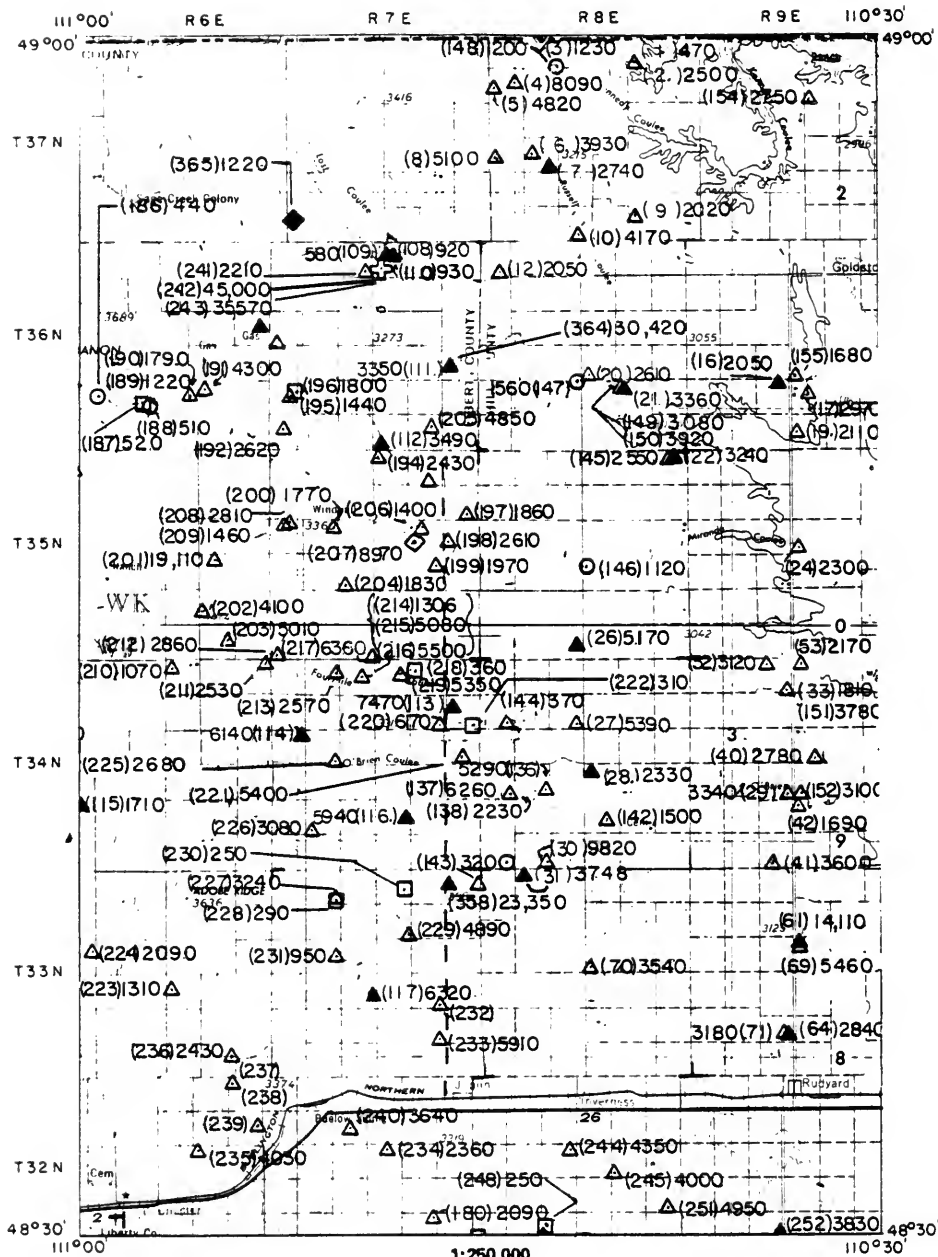


**SHELBY :**



SPECIFIC CONDUCTANCE SURVEY

SHELBY 2



**SHELBY 3**

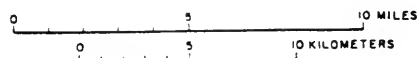
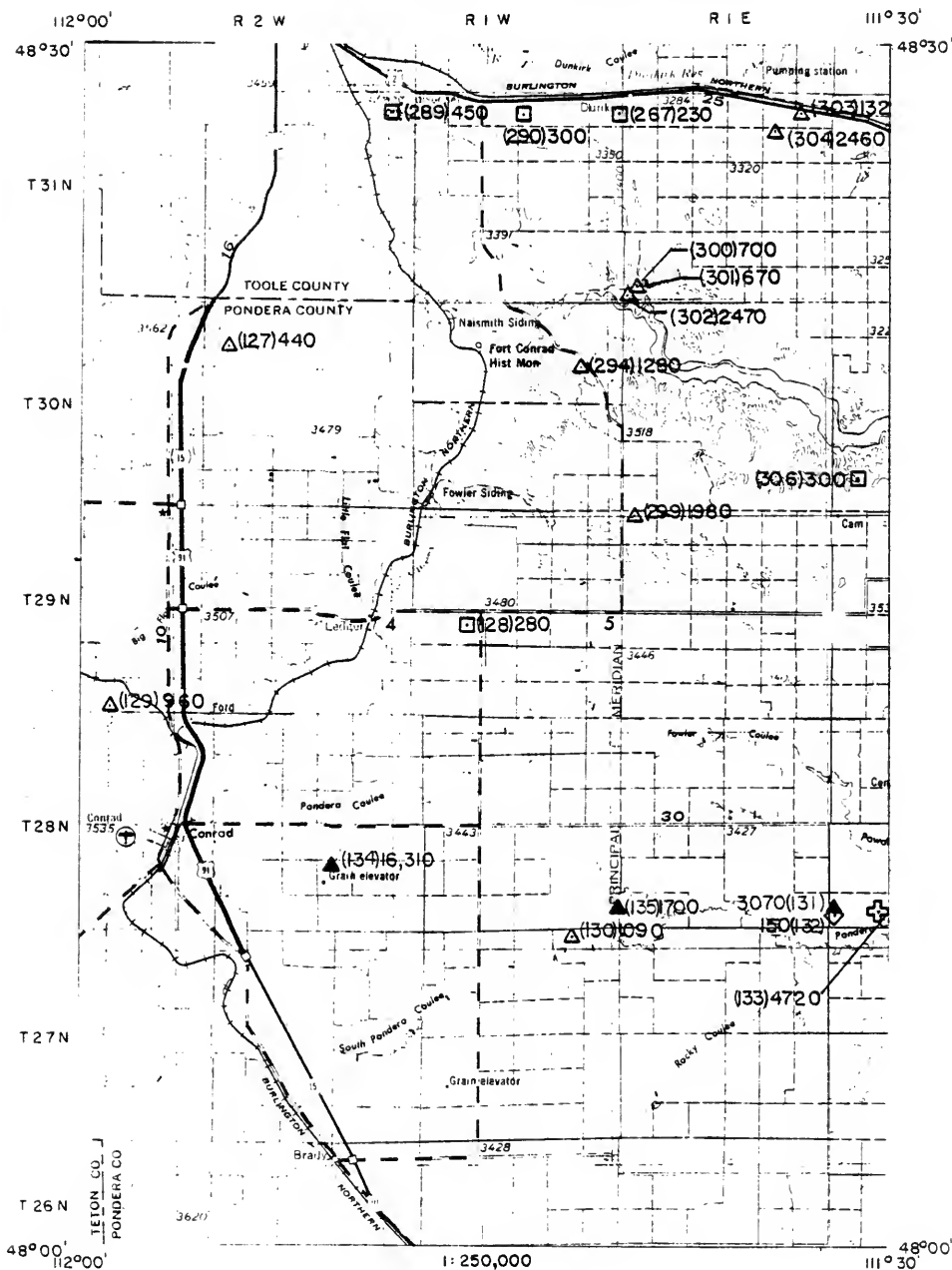


**SHELBY** -



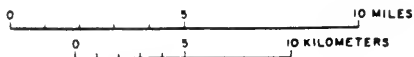
# SPECIFIC CONDUCTANCE SURVEY

SHELBY 3



CONTOUR INTERVAL 100 FT

**SHELBY 6**



CONTOUR INTERVAL 100 FT

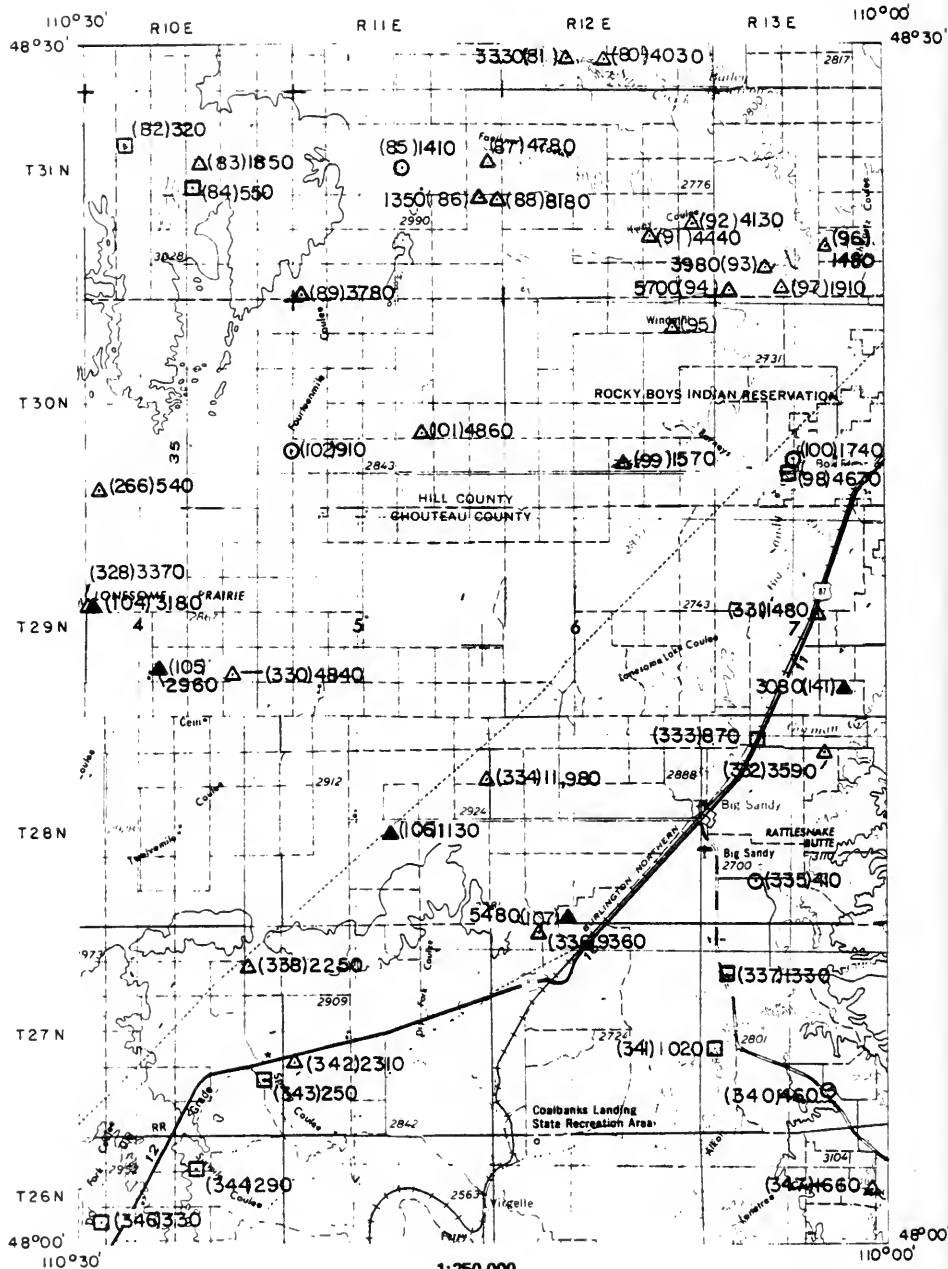


**SHELBY 7**

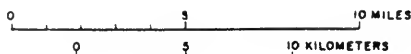


SPECIFIC CONDUCTANCE SURVEY

SHELBY 8



1:250,000



CONTOUR INTERVAL 100 FT

## SHELBY 1' x 2' Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref. | Field<br>no. | County | Location<br>T R Sec Tract | Collection<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                            | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis<br>°C | Altitude<br>ft. | State<br>water<br>level<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Acquirer<br>code | Owner's name     |
|-------------|--------------|--------|---------------------------|-------------------------|--|---|--------------------------------------|----------------------|-----------------------|-----------------|---|------------------------|------------------|------------------|
| 1           | MBMG1        | Hill   | 37N 08E 02 C              | 08 04 75                | Well   | Domestic use                                | 470                                  | 13.9                 | no                    | 3100            |   | 20                     |                  | Ramberg          |
| 2           | MBMG2        | Hill   | 37N 08E 02 C              | 08 04 75                | Well   | Domestic use                                | 260                                  | 12.8                 | no                    | 3100            |   |                        |                  | Ramberg          |
| 3           | MBMG3        | Hill   | 37N 08E 05 DDD            | 08 04 75                | Creek  | Kennedy Coulee                              | 1230                                 | 20.7                 | no                    | 3090            |   |                        |                  |                  |
| 4           | MBMG4        | Hill   | 37N 08E 07 AD8A           | 08 04 75                | Well   | Water has unpleasant odor and is discolored | 8090                                 | 11.8                 | no                    | 3240            |   | 230                    |                  | Temple, J        |
| 5           | MBMG5        | Hill   | 37N 08E 07 CB8C           | 08 04 75                | Well   | Water is not used for drinking              | 4820                                 | 14.2                 | no                    | 3260            |   | 100                    |                  | Mentfield, E.    |
| 6           | MBMG7        | Hill   | 37N 08E 20 BCCC           | 08 04 75                | Well   | Domestic use                                | 3830                                 | 13                   | no                    | 3240            |   | 225                    |                  | Rudolph          |
| 7           | MBMG8        | Hill   | 37N 08E 20 BCCC           | 08 13 77                | Well   | Domestic use                                | 2740                                 | 10                   | yes                   | 3190            | 180                                       | 280                    | 211.DRV          | Wolery, D        |
| 8           | MBMG6        | Hill   | 37N 08E 19 CB8B           | 08 04 75                | Well   | Water is not used for drinking              | 5100                                 | 14.8                 | no                    | 3200            |   | 276                    |                  | Wolery, D        |
| 9           | MBMG9        | Hill   | 37N 08E 35 BC8B           | 08 04 75                | Well   | Domestic use, water is discolored           | 2020                                 | 16.8                 | no                    | 3150            |   |                        |                  | Sevier           |
| 10          | MBMG9        | Hill   | 37N 08E 35 DCCD           | 08 04 75                | Well   | Domestic use                                | 4170                                 | 14.2                 | no                    | 3100            |   |                        |                  | Sevier           |
| 11          | MBMG11       | Hill   | 37N 10E 09                | 08 05 75                | River  | Milk River                                  | 2530                                 | 19.5                 | no                    | 2680            |   |                        |                  | Augston, A       |
| 12          | MBMG14       | Hill   | 36N 08E 06 DCCD           | 08 04 75                | Well   | Domestic use                                | 2050                                 | 15.7                 | no                    | 3130            |   |                        |                  | Wolery, L        |
| 13          | MBMG20       | Hill   | 36N 10E 06 DCCD           | 01 12 77                | Well   | Domestic use                                | 3440                                 | 9                    | yes                   | 2990            | 60  | 120                    | 112.DRF T        | Perick, Clifford |
| 14          | MBMG22       | Hill   | 36N 10E 21 BD             | 08 06 75                | Well   | Domestic use                                | 450                                  | 10.8                 | no                    | 2970            |   | 20                     |                  | Perick, Lilo J   |
| 15          | MBMG21       | Hill   | 36N 10E 21 BD8A           | 01 12 77                | Well   | Water is not used for drinking              | 5170                                 | 13                   | yes                   | 2970            | 80  | 160                    | 211.DRV          | Perick, Lilo, J  |
| 16          | MBMG19       | Hill   | 36N 08E 28 AB8B           | 01 12 77                | Well   | Domestic use                                | 2650                                 | 8                    | yes                   | 3040            | 105                                       | 270                    | 211.DRV          | Solum, D         |
| 17          | MBMG17       | Hill   | 36N 08E 27 BDCC           | 08 05 75                | Well   | Water is not used for drinking              | 2250                                 | 12                   | yes                   | 2960            |   | 240                    | 211.DRV          | Chivilick, L.    |
| 18          | MBMG23       | Hill   | 36N 10E 32 DAAA           | 01 12 77                | Well   | Water is not used for drinking              | 2110                                 | 16                   | no                    | 2960            |   | 100                    |                  | Fields           |
| 19          | MBMG19       | Hill   | 36N 08E 34 CB8B           | 08 05 75                | Well   | Water is not used for drinking              | 2610                                 | 13.1                 | no                    | 3020            |   | 170                    |                  | Lineweaver       |
| 20          | MBMG15       | Hill   | 36N 08E 22 CCCC           | 08 03 75                | Well   | Water is not used for drinking              |                                      |                      |                       |                 |   |                        |                  |                  |
| 21          | MBMG16       | Hill   | 36N 08E 26 BB8C           | 01 13 77                | Well   | Water is not used for drinking              | 3160                                 | 11                   | yes                   | 3070            | 80  | 200                    | 211.DRV          | Berge            |
| 22          | MBMG24       | Hill   | 36N 10E 04 CB8C           | 01 13 77                | Well   | Domestic use                                | 3240                                 | 4                    | yes                   | 3050            |   | 200                    | 211.DRV          | Berge            |
| 23          | MBMG27       | Hill   | 36N 10E 04 CB8C           | 01 12 77                | Well   | Domestic use                                | 3690                                 | 11                   | yes                   | 2910            | 50  | 210                    | 211.DRV          | Chivilick        |
| 24          | MBMG25       | Hill   | 36N 08E 15 CB8B           | 08 06 75                | Well   | Domestic use                                | 2100                                 | 13                   | no                    | 2980            |   | 115                    |                  | Tolson           |
| 25          | MBMG12       | Hill   | 36N 10E 17 DDAC           | 08 05 76                | Well   | Domestic use                                | 1870                                 | 10.5                 | no                    | 2940            |   | 200                    |                  | Lincoln          |
| 26          | MBMG25       | Hill   | 35N 08E 23 DAAA           | 01 13 77                | Well   | Water is not used for drinking              | 5170                                 | 9                    | yes                   | 3160            | 80  | 165                    | 211.DRV          | Peterson, Ralph  |
| 27          | MBMG28       | Hill   | 34N 08E 09 DDDD           | 08 04 75                | Well   | Water is not used for drinking              | 5390                                 | 11.8                 | no                    | 3180            |   | 124                    |                  | McFaraden        |
| 28          | MBMG33       | Hill   | 34N 08E 22 BB8C           | 01 13 77                | Well   | Water is not used for drinking              | 2330                                 | 18                   | yes                   | 3120            |   | 20                     | 120.DRF T        | Carr, Lorne      |
| 29          | MBMG32       | Hill   | 34N 08E 21 DDDA           | 08 05 75                | Well   | Water is not used for drinking              | 3340                                 | 18.5                 | no                    | 3150            |   | 166                    |                  | Anderson, R.     |
| 30          | MBMG34       | Hill   | 34N 08E 32 DDDD           | 08 03 75                | Well   | Water is not used for drinking              | 5920                                 | 13                   | no                    | 3220            |   |                        |                  | Hall             |

SHELBY 1" x 2" Sheet (Cont.)

Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref.<br>no. | Field<br>number | County | Location<br>T R Sec Tract          | Collection<br>date<br>Mo Day Yr | Source | Flow or yield<br>E=estimated<br>M=measured           | Site description | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name   |
|--------------------|-----------------|--------|------------------------------------|---------------------------------|--------|--|------------------|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|----------------|
| 31                 | MBMG106         | Hill   | 33N 08E 06 8BBA 01 13 77 Well      |                                 |        | Domestic use   |                  | 3748                                 | 9                    | yes             | 3250              | 80                                | 230                    | 211JDRV         | Bakke          |
| 32                 | MBMG35          | Hill   | 34N 09E 04 8BBB 08 04 75 Well      |                                 |        | Domestic use   |                  | 3120                                 | 18.9                 | no              | 3010              | 90                                |                        |                 | DeMarian       |
| 33                 | MBMG36          | Hill   | 34N 09E 04 8BBB 08 05 75 Well      |                                 |        | Water is not used for drinking                       |                  | 1810                                 | 17.5                 | no              | 3040              |                                   |                        |                 | VanWichel      |
| 34                 | MBMG69          | Hill   | 34N 12E 19 8CBA 01 11 77 Well      |                                 |        | Domestic use   |                  | 2890                                 | 9                    | yes             | 2760              | 20                                | 75                     | 211JDRV         | Pollington     |
| 35                 | MBMG40          | Hill   | 34N 10E 07 8CBA 08 05 75 Well      |                                 |        | Water is not used for drinking                       |                  | 1580                                 | 15.8                 | no              | 2990              | 20                                |                        |                 | Michelson      |
| 36                 | MBMG70          | Hill   | 34N 12E 18 8CBA 04 11 76 Well      |                                 |        | Domestic use   |                  | 260                                  | 8.8                  | no              | 2760              | 6                                 | 68                     | 112DRFT         | Stephenson     |
| 37                 | 7041584         | Hill   | 34N 10E 14 8CBA 01 12 77 Well      |                                 |        | Domestic use   |                  | 2710                                 | 8                    | yes             | 2850              |                                   |                        |                 | Stephenson     |
| 38                 | MBMG41          | Hill   | 34N 10E 14 8CBA 08 05 75 Well      |                                 |        | Domestic use   |                  | 2730                                 | 17.5                 | yes             | 2880              | 14                                | 17                     | 112DRFT         | Stephenson     |
| 39                 | MBMG42          | Hill   | 34N 10E 14 8CBA 01 12 77 Well      |                                 |        | Domestic use   |                  | 2230                                 | 9                    | yes             | 2880              |                                   |                        |                 | Truchi         |
| 40                 | MBMG37          | Hill   | 34N 08E 15 8CCC 08 05 77 Well      |                                 |        | Domestic use   |                  | 2780                                 | 12.8                 | no              | 3040              |                                   |                        |                 |                |
| 41                 | MBMG38          | Hill   | 34N 09E 33 8CDB 08 04 75 Well      |                                 |        | Water is not used for drinking                       |                  | 3600                                 |                      | no              | 3030              | 3                                 | 100                    |                 | Huntley        |
| 42                 | MBMG39          | Hill   | 34N 09E 27 8BA8 08 05 75 Well      |                                 |        | Water has an unpleasant odor                         |                  | 1680                                 | 14.1                 | no              | 3030              | 3                                 | 190                    |                 | Anderson       |
| 43                 | MBMG54          | Hill   | 35N 11E 31 8CDB 04 13 76 Well      |                                 |        | Domestic use except for drinking                     |                  | 3620                                 | 13.9                 | no              | 2840              | 195                               |                        |                 | Wain           |
| 44                 | MBMG55          | Hill   | 35N 11E 31 8CDB 01 12 77 Well      |                                 |        | Stock use  |                  | 4540                                 | 16                   | yes             | 2950              | 137                               | 205                    | 211JDRV         | Wain           |
| 45                 | MBMG68          | Hill   | 34N 11E 24 8CDB 01 11 77 Well      |                                 |        | Domestic use except for drinking                     |                  | 5729                                 | 5                    | yes             | 2800              |                                   |                        |                 | Good, Roy      |
| 46                 | MBMG72          | Hill   | 34N 12E 05 8DDB 04 14 76 Reservoir |                                 |        |  |                  | 170                                  | 11.1                 | no              | 2720              |                                   |                        |                 |                |
| 47                 | MBMG73          | Hill   | 34N 12E 05 8DDB 04 14 76 Reservoir |                                 |        |  |                  | 260                                  | 18.6                 | no              | 2700              |                                   |                        |                 |                |
| 48                 | MBMG74          | Hill   | 34N 12E 05 8DDB 04 14 76 Reservoir |                                 |        |  |                  | 140                                  | 14.8                 | no              | 2730              |                                   |                        |                 |                |
| 49                 | MBMG75          | Hill   | 34N 12E 16 8ADA 04 14 76 Reservoir |                                 |        |  |                  | 260                                  | 16                   | no              | 2700              |                                   |                        |                 | Wassell        |
| 50                 | MBMG76          | Hill   | 34N 12E 23 8DCC 04 14 76 Well      |                                 |        | Stock reservoir                                      |                  | 700                                  | 10.2                 | no              | 2880              |                                   |                        |                 |                |
| 51                 | MBMG77          | Hill   | 34N 12E 23 8DCC 04 14 76 Reservoir |                                 |        |  |                  | 130                                  | 13.8                 | no              | 2890              |                                   |                        |                 |                |
| 52                 | MBMG80          | Hill   | 34N 12E 20 8CDB 04 14 76 Well      |                                 |        | Domestic use except for drinking                     |                  | 4040                                 | 8.5                  | no              | 2800              |                                   |                        |                 |                |
| 53                 | MBMG78          | Hill   | 34N 12E 26 8ABA 04 14 76 Reservoir |                                 |        | Chin of Lakes  |                  | 130                                  | 14.4                 | no              | 2800              |                                   |                        |                 |                |
| 54                 | MBMG79          | Hill   | 34N 12E 36 8ADB 04 14 76 Reservoir |                                 |        | Reservoir in Dry Lake Coulee                         |                  | 1020                                 | 11                   | no              | 2630              |                                   |                        |                 |                |
| 55                 | MBMG81          | Hill   | 34N 12E 27 8AB 04 14 76 Well       |                                 |        | Stock use, water is corrosive                        |                  | 1020                                 | 8.8                  | no              | 2700              | 265                               |                        |                 | Donovan        |
| 56                 | MBMG82          | Hill   | 33N 12E 04 8ADD 04 14 76 Well      |                                 |        | Domestic use except for drinking, water is corrosive |                  | 6040                                 | 16.5                 | no              | 2750              |                                   |                        |                 | Donovan        |
| 57                 | MBMG131         | Hill   | 33N 12E 24 8DAB 04 12 76 Reservoir |                                 |        | Stock use  |                  | 4510                                 | 20                   | no              | 2760              |                                   |                        |                 | Kuile          |
| 58                 | MBMG132         | Hill   | 33N 12E 27 8BA8 04 12 76 Well      |                                 |        | Unused   |                  | 4780                                 | 11                   | no              | 2720              | 210                               |                        |                 | Vogel, Raymond |
| 59                 | MBMG132         | Hill   | 33N 12E 33 8BBA 04 12 76 Well      |                                 |        | Domestic use   |                  | 570                                  | 28                   | no              | 2900              |                                   |                        |                 |                |
| 60                 | MBMG110         | Hill   | 33N 10E 07 D 01 13 77 Well         |                                 |        | Domestic use   |                  | 4830                                 | 6                    | yes             | 3060              | 1077                              | 211EGLE                |                 | Peter          |

## SHELBY 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>number | County | Location<br>T R Sec Tract          | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                     | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>depth<br>(ft.) | Aquifer<br>code | Dewitt's name |
|-------------|-----------------|--------|------------------------------------|---------------------------------|--|--------------------------------------|--------------------------------------|----------------------|-----------------|-------------------|--|-----------------|---------------|
| 51          | MBMG108         | Hill   | 33N 09E 15 88CC 01 12 17 Well      |                                 |  | Water is not used for drinking       | 14110                                | 9                    | yes             | 3090              | 20   | 183 211DRV      | Smir, Jim     |
| 52          | MBMG111         | Hill   | 33N 10E 16 DCCD 04 15 76 Well      |                                 |  |                                      |                                      |                      | no              | 3060              |  |                 |               |
| 53          | MBMG113         | Hill   | 33N 10E 36 DDAB 04 14 75 Seep      |                                 |  |                                      | 600                                  | 13                   | no              | 3060              |  |                 |               |
| 54          | MBMG109         | Hill   | 33N 09E 28 DCCD 04 12 75 Well      |                                 |  | Domestic and stock use               | 2840                                 | 10                   | no              | 2840              | 18   | 80 112DRFT      | Donner        |
| 55          | MBMG112         | Hill   | 33N 11E 31 DCCD 04 14 75 Seep      |                                 |  |                                      | 15790                                | 20                   | no              | 3850              |  |                 |               |
| 56          | MBMG114         | Hill   | 33N 11E 31 DCCD 04 14 76 Reservoir |                                 |  |                                      |                                      |                      | no              | 2840              |  |                 |               |
| 57          | MBMG117         | Hill   | 33N 11E 05 BARD 04 14 76 Spring    |                                 | 1 gpm  | Marshy area around spring            | 2740                                 | 23                   | no              | 2840              |  |                 |               |
| 58          | MBMG115         | Hill   | 33N 10E 03 BADA 04 14 76 Well      |                                 | 1 gpm  | Unused                               | 2320                                 | 8                    | no              | 3040              | 30   |                 | Spicer, Bill  |
| 59          | MBMG106         | Hill   | 33N 09E 15 88CC 08 04 75 Well      |                                 |  | Water is not used for drinking       | 5460                                 | 12                   | no              | 3090              | 186  |                 | Voss          |
| 60          | MBMG107         | Hill   | 33N 08E 15 CCAC 08 03 75 Well      |                                 |  | Unused                               | 3540                                 | 10.6                 | no              | 3250              | 209  |                 | Zemke         |
| 71          | MBMG109         | Hill   | 33N 09E 28 DDA 08 04 75 Well       |                                 |  | Domestic use                         | 3180                                 | 13.8                 | no              | 3100              | 80   |                 | Donner        |
| 72          | MBMG110         | Hill   | 33N 11E 05 DCCD 04 14 76 Well      |                                 |  |                                      | 6960                                 | 12                   | no              | 2810              |  |                 |               |
| 73          | MBMG119         | Hill   | 33N 11E 15 DADA 04 14 76 Reservoir |                                 |  |                                      | 8720                                 | 12                   | no              | 2820              |  |                 |               |
| 74          | MBMG135         | Hill   | 33N 12E 18 CAAB 04 13 76 Creek     |                                 |  | Reservoir on tributary to Sage Creek | 2530                                 | 15.5                 | no              | 2740              |  |                 |               |
| 75          | MBMG142         | Hill   | 33N 13E 18 DCCD 04 12 75 Reservoir |                                 |  | Stock reservoir                      | 870                                  | 12                   | no              | 2840              |  |                 |               |
| 76          | MBMG140         | Hill   | 33N 13E 17 CBAB 04 12 75 Well      |                                 |  | Domestic use                         | 4740                                 | 11                   | no              | 2680              | 130  |                 | Rollison, W.  |
| 77          | MBMG141         | Hill   | 33N 13E 17 CBAB 04 12 78 Reservoir |                                 |  | Used for irrigation                  | 1060                                 | 17                   | no              | 2680              |  |                 | Rollison, W.  |
| 78          | MBMG136         | Hill   | 33N 12E 22 BABB                    |                                 |  |                                      | 1640                                 |                      | no              | 2920              | 206  |                 | Johnson, Kate |
| 79          | MBMG137         | Hill   | 33N 12E 22 BABB                    |                                 |  |                                      | 8100                                 |                      | no              | 2920              |  |                 | Johnson, Kate |
| 80          | MBMG139         | Hill   | 33N 12E 23 AAAA                    |                                 |  |                                      | 4030                                 |                      | no              | 2760              | 126  |                 |               |
| 81          | MBMG138         | Hill   | 33N 12E 32 AAAA                    |                                 |  |                                      | 3330                                 |                      | no              | 2780              | 173  |                 |               |
| 82          | MBMG121         | Hill   | 31N 10E 08 CBDA 04 14 76 Reservoir |                                 |  | Reservoir on East Fork Black Coulee  | 320                                  | 13.5                 | no              | 3020              |  |                 | Alex. John    |
| 83          | MBMG122         | Hill   | 31N 10E 15 BACD 04 14 76 Well      |                                 |  | Domestic use                         | 1850                                 | 13                   | no              | 3050              | 16   |                 |               |
| 84          | MBMG123         | Hill   | 31N 10E 15 CCCC 04 14 75 Pond      |                                 |  | Stagnant water in a ditch            | 550                                  | 11.1                 | no              | 3040              |  |                 |               |
| 85          | MBMG120         | Hill   | 31N 11E 15 88BC 04 14 78 Creek     |                                 |  |                                      | 1410                                 | 10                   | no              | 2670              |  |                 |               |
| 86          | MBMG124         | Hill   | 31N 11E 24 BARD 04 13 76 Well      |                                 |  | Stock use                            | 1350                                 | 6.1                  | no              | 2650              | 30   |                 | Curry, Lee    |
| 87          | MBMG126         | Hill   | 31N 11E 13 AAAA 04 13 78 Well      |                                 | 6 gpm  | Stock use                            | 4100                                 |                      | no              | 2850              |  |                 | Curry, Lee    |
| 88          | MBMG125         | Hill   | 31N 11E 13 AAAA 04 13 78 Well      |                                 |  | Stock use except for drinking        | 8180                                 | 11.5                 | no              | 2850              | 30   |                 | Curry, Lee    |
| 89          | MBMG124         | Hill   | 31N 11E 31 CCCC 04 14 75 Well      |                                 |  | Domestic use except for drinking     | 3780                                 | 18.3                 | no              | 2850              | 135  |                 | Dolph, Don L. |
| 90          |                 |        |                                    |                                 |  |                                      |                                      |                      |                 |                   |  |                 |               |

## SHELBY 1' x 2' Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no. | Field<br>number | County  | Location<br>T R Sec Tect | Collection<br>date | Flow or yield<br>E=estimated<br>M=measured | Site description                           | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analyst | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Downer's name   |
|-------------------|-----------------|---------|--------------------------|--------------------|--|--|--------------------------------------|---------------------|----------------|-----------------|---------------------------------|----------------------|-----------------|-----------------|
| 91                | MBMG158         | Hill    | 31N 12E 28 8BCD          | 04 13 78 Well      | 5 gpm                                      | Domestic use except for drinking           | 4440                                 | 10.8                | no             | 2780            |                                 | 180                  |                 | Carpenter, Earl |
| 92                | MBMG157         | Hill    | 31N 12E 24 CDD8          | 04 12 76 Well      |  | Domestic use                               | 4130                                 | 10                  | no             | 2680            |                                 | 200                  |                 | Michels, Harold |
| 93                | MBMG160         | Hill    | 31N 13E 32 BAAA          | 04 12 76 Well      | 7 gpm                                      | Stock use                                  | 3980                                 | 10                  | no             | 2650            |                                 | 182                  |                 | Michels, Harold |
| 94                | MBMG            | Hill    | 31N 13E 31 CDD8          | 04 12 76 Well      |  | Domestic use except for drinking           | 5100                                 | 12                  | no             | 2770            | 137                             | 246                  | 211CLGT         | Goodman         |
| 95                | MBMG167         | Hill    | 30N 12E 07 DDDC          | 04 13 76 Well      |  | Domestic use                               |                                      |                     | no             | 2830            |                                 |                      |                 |                 |
| 96                | MBMG159         | Hill    | 31N 13E 27 BCC8          | 04 12 76 Well      |  | Domestic use                               | 1480                                 | 12                  | no             |                 | 10                              | 20                   |                 | Seward, Jim     |
| 97                | MBMG181         | Hill    | 31N 13E 32 DDA4          | 04 12 78 Well      |  | Reservoir is surrounded by sets            | 1910                                 | 7                   | no             | 2710            | 22                              | < 50                 |                 | Michels, H      |
| 98                | MBMG189         | Hill    | 30N 13E 33 8B8C          | Reservoir          |  | Domestic use                               | 4870                                 |                     | no             | 2630            |                                 |                      |                 | Blitz           |
| 99                | MBMG188         | Hill    | 30N 12E 27 CDD           | 04 13 76 Well      |  | Domestic use                               | 1570                                 | 17                  | no             | 2840            |                                 | 30                   |                 |                 |
| 100               | MBMG171         | Hill    | 30N 13E 28 CDD           | 04 12 76 Pond      |  |  | 1740                                 | 13                  | no             | 2630            |                                 |                      |                 | Cowan           |
| 101               | MBMG130         | Hill    | 30N 11E 22 DCCC          | 04 14 78 Well      |  | Fourteen Mile Coulee                       | 4880                                 | 7                   | no             | 2840            | 34                              |                      |                 | Cowan           |
| 102               | MBMG129         | Hill    | 30N 10E 25 ADAD          | 04 14 78 Creek     |  |  | 910                                  | 12.5                | no             | 2840            |                                 |                      |                 | Cowan           |
| 103               | not on map      |         |                          |                    |  |  |                                      |                     |                |                 |                                 |                      |                 |                 |
| 104               | not on map      | Choctaw | 29N 10E 18 CDD8          | 01 14 77 Well      |  |  | 3180                                 | 10                  | yes            | 2880            | 225                             | 436                  | 211EGLE         | Bald            |
| 105               | 76M1606         | Choctaw | 29N 10E 28 CDD           | 01 14 77 Well      |  |  | 2960                                 | 12                  | yes            | 2880            |                                 | 340                  | 211EGLE         | Kulbeck         |
| 106               | 76M1605         | Choctaw | 28N 11E 22 BCAD          | 01 14 77 Well      | 5 gpm                                      | Stock use                                  | 1130                                 | 14                  | yes            | 2940            |                                 | 32                   | 112DRFT         | Haakensen       |
| 107               | 76M1608         | Choctaw | 28N 12E 33 CCCC          | 01 14 77 Well      |  |  | 5490                                 | 14                  | yes            | 2780            | 100                             | 500                  | 211EGLE         | Kenley          |
| 108               | 76M0240         | Liberty | 36N 07E 03 BDAB          | 04 12 78 Well      |  | Ven Dessel Test Area                       | 9280                                 | 7.1                 | yes            | 3130            | 7                               | 60                   | 112GDF          | Kenley          |
| 109               | 76M0242         | Liberty | 36N 07E 03 BCD           | 04 12 76 Well      |  | Ven Dessel Test Area                       | 980                                  | 11                  | yes            | 3180            | 24                              | 60                   | 112GDF          | Van Dessel      |
| 110               | 76M0241         | Liberty | 36N 07E 03 BDAD          | 04 12 76 Well      |  | Ven Dessel Test Area                       | 930                                  | 8.1                 | yes            | 3130            | 5                               | 35                   | 112GDF          | Van Dessel      |
| 111               | 76M1461         | Liberty | 36N 07E 24 CBGA          | 12 04 78 Well      |  | Domestic use                               | 3350                                 | 13.3                | yes            |                 | 6                               | 12                   | 112GDF          | Robo, Gustav    |
| 112               | 76M1464         | Liberty | 36N 07E 14 CDD           | 12 04 78 Well      |  | Domestic use                               | 3490                                 | 6                   | yes            |                 |                                 | 125                  | 211JDRV         | Hodges          |
| 113               | 76M1465         | Liberty | 36N 07E 12 BCCC          | 12 05 78 Well      | 7 gpm                                      | Water is not used for drinking             | 7470                                 | 14                  | yes            | 3240            | 20                              | 80                   | 211JDRV         | Rudolph         |
| 114               | 76M1465         | Liberty | 36N 07E 18 AABA          | 12 04 76 Well      | 16 gpm (M)                                 | Water is not used for drinking             | 6140                                 | 9.2                 | yes            | 3380            | 70                              | 120                  | 211JDRV         | Graff           |
| 115               | 76M0243         | Liberty | 34N 05E 30 SABB          | 04 12 78 Well      |  | Shari Test Area No S-12, SK2-74            | 1710                                 | 8.5                 | yes            | 3330            | 27                              | 64                   | 112GDF          | Shari           |
| 116               | 76M1467         | Liberty | 34N 07E 27 DAAB          | 12 06 78 Well      |  | Water is not used for drinking             | 5840                                 | 25                  | yes            | 3300            | 80                              | 100                  | 211JDRV         | Cady            |
| 117               | 76M1468         | Liberty | 33N 07E 31 DADC          | 12 06 76 Well      |  | Domestic use except for drinking & cooking | 6330                                 | 15                  | yes            | 3400            | 180                             | 280                  | 211JDRV         | Penley, Don     |
| 118               | MBMG10          | Toole   | 37N 03W 16 ADD9          | 12 30 76 Creek     | 1 gpm (E)                                  | Stock use only                             | 5330                                 | 1.5                 | no             | 3400            |                                 |                      |                 | McAlpine, C     |
| 119               | MBMG13          | Toole   | 37N 03W 22 DDB           | 12 30 76 Spring    |  | Reservoir frozen over                      | 1560                                 | 2.9                 | no             | 3400            |                                 |                      |                 | McAlpine, C     |
| 120               | MBMG12          | Toole   | 37N 03W 23 DDDA          | 12 30 75 Reservoir |  |  | 200                                  | 0                   | no             | 3360            |                                 |                      |                 |                 |

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|-------------|----------------------|----------|---------------------------|---------------------------------|--|--------------------------------|--------------------------------------|---------------|-----------------|----------------------------|-----------------------------------|-----------------|--------------|
| 121         | MBMG15               | Toole    | 36N 02W 32 D00            | 12 30 75                        | Reservoir                                      | Reservoir frozen over          | 13600                                | 0             | no              | 3420                       |                                   |                 |              |
| 122         | MBMG14               | Toole    | 36N 02W 03 BAAC           | 12 30 75                        | Reservoir                                      | Reservoir frozen over          | 2800                                 | 2             | no              | 3480                       |                                   |                 | Frugue       |
| 123         | MBMG17               | Toole    | 36N 02W 26 ACA            | 12 30 75                        | Reservoir                                      | Reservoir frozen over          | 1300                                 | 0.8           | no              | 3480                       |                                   |                 | Byrns, W     |
| 124         | MBMG16               | Toole    | 36N 02W 26 ACA            | 12 30 75                        | Reservoir                                      | Reservoir frozen over          | 430                                  | 0.8           | no              | 3450                       |                                   |                 | Dahl, Bill   |
| 125         | 78M1455              | Toole    | 36N 01E 21 DAAA           | 12 03 76                        | Well   | Domestic use                   | 5140                                 | 7.7           | yes             | 3440                       |                                   |                 | Johannsen    |
| 126         | 78M1480              | Toole    | 37N 02E 01 CCCC           | 12 03 76                        | Creek  | Willow Creek                   | 3660                                 | 1.3           | yes             | 3200                       |                                   | 211CLR0         |              |
| 127         | MBMG40               | Pondera  | 36N 02W 07 ACD            | 08 29 76                        | Reservoir                                      |                                | 440                                  |               | no              | 3490                       |                                   |                 | Jones, Tom   |
| 128         | MBMG41               | Pondera  | 29N 01W 20 ACA            | 08 29 76                        | Reservoir                                      |                                | 280                                  |               | no              | 3510                       | 60                                |                 | Finlayson    |
| 129         | MBMG45               | Pondera  | 29N 03E 34 CDCA           | 08 29 76                        | Well   | Domestic use                   | 960                                  |               | no              | 3500                       |                                   |                 |              |
| 130         | MBMG42               | Pondera  | 27N 01W 02 BAAA           | 08 29 76                        | Well   | Domestic use                   | 1090                                 |               | no              | 3300                       |                                   |                 |              |
| 131         | MBMG43               | Pondera  | 28N 02E 31 DCCC           | 12 03 76                        | Well   | Domestic use                   | 3070                                 | 21            | yes             | 3310                       | 35                                |                 | Matheson     |
| 132         | MBMG44               | Pondera  | 28N 02E 31 DCCA           | 08 29 76                        | Spring   |                                | 150                                  |               | no              | 3310                       |                                   |                 | Matheson     |
| 133         | MBMG45               | Pondera  | 28N 02E 32 CADA           | 08 29 76                        | Spring   |                                | 4720                                 |               | no              | 3320                       |                                   |                 | Matheson     |
| 134         | 78M0247              | Pondera  | 28N 02W 27 BADA           | 04 14 76                        | Well   | Anderson test area             | 18310                                | 7             | yes             | 3620                       | 11                                | 34 112DRFT      | Anderson     |
| 135         | 78M0248              | Pondera  | 28N 01W 36 ADRC           | 04 14 76                        | Well   | Meati test area                | 1700                                 | 8             | yes             | 3620                       | 14                                | 112GCL0         | Mule         |
| 136         | MBMG29               | Hill     | 34N 08E 20 C0CB           | 08 03 75                        | Well   |                                | 5290                                 | 10            | no              | 3170                       | 85                                |                 | Gutcher      |
| 137         | MBMG30               | Hill     | 34N 08E 18 D0DA           | 08 03 75                        | Well   |                                | 2230                                 | 12            | no              | 3170                       |                                   |                 | Gutcher      |
| 138         | MBMG31               | Hill     | 34N 08E 18 D0DA           | 08 03 75                        | Well   |                                | 2230                                 | 12            | no              | 3170                       | 8                                 | 16              | Gutcher      |
| 139         | MBMG32               | Hill     | 35N 02W 02 D0CA           | 04 12 76                        | Well   | Domestic use                   | 1000                                 |               | no              | 2740                       |                                   |                 | Good         |
| 140         | MBMG43               | Toole    | 35N 02W 02 D0CA           | 04 12 76                        | Well   | Saline seep test well          | 5440                                 | 11            | yes             | 3430                       | 11                                | 27 112DRFT      | Flesch       |
| 141         | 78M1604              | Chouteau | 29N 13E 34 ABGB           | 01 14 77                        | Well   | Domestic                       | 3080                                 | 18            | yes             | 2680                       | 20                                | 237 112DRFT     | Clawiter     |
| 142         | MBMG142              | Hill     | 34N 08E 27 DBAB           | 07 30 75                        | Well   | Domestic                       | 1500                                 | 11.6          | no              | 3160                       |                                   |                 | Barbee       |
| 143         | MBMG143              | Hill     | 34N 08E 31 D0DC           | 07 30 75                        | Creek  | O'Brain Creek                  | 320                                  | 23            | no              | 3260                       |                                   |                 |              |
| 144         | MBMG144              | Hill     | 34N 08E 07 D0D0           | 07 30 75                        | Well   |                                | 370                                  | 13.5          | no              | 3200                       |                                   |                 | McCam        |
| 145         | MBMG145              | Hill     | 35N 08E 07 AB8B           | 07 30 75                        | Well   | Water is not used for drinking | 2550                                 | 12            | no              | 3600                       | 200                               |                 | Packer, B.   |
| 146         | MBMG146              | Hill     | 35N 08E 22 D0BB           | 07 30 75                        | Creek  | Little Sage Creek              | 1120                                 | 19.6          | no              | 3070                       |                                   |                 |              |
| 147         | MBMG147              | Hill     | 35N 08E 38 AAAA           | 07 30 75                        | Creek  | Big Sage Creek                 | 1560                                 | 23.1          | no              | 3020                       |                                   |                 |              |
| 148         | MBMG148              | Hill     | 37N 08E 06 D0DA           | 08 04 76                        | Creek  | Kennedy Coulee                 | 1200                                 | 20.7          | no              | 3060                       |                                   |                 |              |
| 149         | MBMG149              | Hill     | 35N 08E 26 BB8B           | 08 04 75                        | Well   | Domestic use                   | 3080                                 | 11.2          | no              | 3080                       |                                   |                 | Fink         |
| 150         | MBMG150              | Hill     | 35N 08E 26 BB8B           | 08 04 75                        | Well   | Domestic use                   | 3920                                 | 10.2          | no              | 3080                       |                                   |                 | Fink         |

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| Map<br>ref. | Field<br>no. | County  | Location<br>T R Sec Tract          | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E-estimated<br>M-measured | See description                  | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level depth<br>ft. | Applier<br>code | Owner's name    |
|-------------|--------------|---------|------------------------------------|---------------------------------|--|----------------------------------|--------------------------------------|---------------------|-----------------|-----------------|---------------------------------------|-----------------|-----------------|
| 151         | MBMG151      | Hill    | 34N 09E 04 DDDB 08 04 75 Well      |                                 |  | Water is not used for drinking   | 3180                                 | 17                  | no              | 3040            |                                       | 31              | Bredbury        |
| 152         | MBMG152      | Hill    | 34N 09E 22 CCDD 08 05 75 Well      |                                 |  | Domestic use                     | 3100                                 | 13.8                | no              | 3040            |                                       |                 | Stark, D        |
| 153         | MBMG153      | Hill    | 34N 09E 03 BBBD 08 05 75 Well      |                                 |  | Domestic use                     | 2170                                 | 16                  | no              | 3020            |                                       |                 | Vandergel       |
| 154         | MBMG154      | Hill    | 37N 09E 10 CCC 08 05 75 Well       |                                 |  | Domestic use except for drinking | 2750                                 | 17                  | no              | 2980            |                                       |                 | Berg, J         |
| 155         | MBMG155      | Hill    | 36N 09E 23 CCBA 08 05 75 Well      |                                 |  | Domestic and stock use           | 1880                                 | 24                  | no              | 2980            |                                       |                 | Lange, A. C     |
| 156         | MBMG156      | Hill    | 32N 10E 04 BADA 08 06 75 Well      |                                 |  | Domestic use                     | 2480                                 | 16.7                | no              | 3060            |                                       |                 | Spicer          |
| 157         | MBMG157      | Hill    | 33N 10E 08 DDDO 08 06 75 Well      |                                 |  | Domestic use except for drinking | 2110                                 | 15.7                | no              | 3060            |                                       | 285             | Spicer          |
| 158         | MBMG158      | Hill    | 33N 10E 07 DDDO 08 06 75 Well      |                                 |  | Domestic use                     | 3980                                 | 32                  | no              | 3070            |                                       | 1064            | Peter           |
| 159         | MBMG159      | Hill    | 33N 10E 06 CCDC 08 06 75 Well      |                                 |  | Domestic use                     | 730                                  | 15.3                | no              | 3040            |                                       |                 | Sterry          |
| 160         | MBMG160      | Hill    | 34N 10E 32 CCDC 08 06 75 Well      |                                 |  | Domestic use                     | 1970                                 | 14.7                | no              | 3000            |                                       | 150             | Spicer          |
| 161         | MBMG161      | Hill    | 34N 10E 20 DDAB 08 06 75 Well      |                                 |  | Domestic use                     | 1630                                 | 14.2                | no              | 3060            |                                       | 180             | Chapelle        |
| 162         | MBMG162      | Hill    | 34N 10E 22 CCDC 08 06 75 Well      |                                 |  | Domestic use                     | 810                                  | 12.8                | no              | 2940            |                                       | 26              | Ford            |
| 163         | MBMG163      | Hill    | 35N 10E 06 CAA 08 06 75 Well       |                                 |  | Domestic use                     | 1500                                 | 14                  | no              | 2960            |                                       |                 | Jackson         |
| 164         | MBMG164      | Hill    | 37N 10E 32 A 08 06 75 Well         |                                 |  | Domestic use                     | 4000                                 | 14.5                | no              | 2960            |                                       |                 | Gretak          |
| 165         | MBMG165      | Liberty | 29N 08E 12 CDBA 07 24 75 Reservoir |                                 |  | Domestic use                     | 3880                                 | 26                  | no              | 2980            |                                       |                 | Good, Phyllis   |
| 166         | MBMG166      | Liberty | 29N 08E 11 ABBD 07 24 75 Reservoir |                                 |  | Stock use                        | 1950                                 | 21.8                | no              | 3060            |                                       |                 | Schumacker      |
| 167         | MBMG167      | Liberty | 30N 08E 30 ABBD 07 24 75 Well      |                                 |  | Domestic and stock use           | 5840                                 | 11                  | no              | 2980            | 25                                    | 225             | Brian           |
| 168         | MBMG168      | Liberty | 30N 08E 20 DDBA 07 24 75 Well      |                                 |  | Domestic and stock use           | 3650                                 | 12                  | no              | 2960            |                                       | 180             | Henke           |
| 169         | MBMG169      | Liberty | 30N 08E 09 CBB 07 24 75 Well       |                                 |  | Domestic and stock use           | 1940                                 | 12                  | no              | 2980            |                                       | 230             | Petuk           |
| 170         | MBMG170      | Liberty | 30N 08E 22 BAAD 07 24 75 Well      |                                 |  | Domestic and stock use           | 1940                                 | 12                  | no              | 2950            |                                       | 285             | Bodnath         |
| 171         | MBMG171      | Liberty | 30N 08E 22 BAAC 07 24 75 Reservoir |                                 |  | Located in Twelve Mile Coulee    | 2720                                 | 28                  | no              | 2920            | 80                                    | 168             | Budnath         |
| 172         | MBMG172      | Liberty | 29N 08E 02 CBDD 07 24 75 Well      |                                 |  | Unused                           | 3340                                 | 12                  | no              | 2990            |                                       | 365             | Nehring         |
| 173         | MBMG173      | Liberty | 30N 08E 05 CCDC 07 25 75 Reservoir |                                 |  |                                  | 290                                  | 22                  | no              | 3020            |                                       |                 | Gagnon, Francis |
| 174         | MBMG174      | Liberty | 31N 08E 26 CBAC 07 25 75 Well      |                                 |  |                                  |                                      |                     | no              |                 |                                       |                 | England         |
| 175         | MBMG175      | Liberty | 31N 08E 26 CBAC 07 25 75 Well      |                                 |  |                                  |                                      |                     | no              |                 |                                       |                 |                 |
| 176         | MBMG176      | Liberty | 31N 08E 26 BABB 07 25 75 Well      |                                 |  |                                  | 1870                                 | 10.2                | no              | 3160            | 50                                    | 260             | Seditz          |
| 177         | MBMG177      | Liberty | 30N 08E 26 BABB 07 25 75 Well      |                                 |  |                                  | 5040                                 | 13                  | no              | 3180            |                                       | 160             | Walle           |
| 178         | MBMG178      | Liberty | 31N 08E 26 ADCA 07 25 75 Reservoir |                                 |  |                                  | 390                                  | 25.5                | no              | 3100            |                                       |                 | Wille           |
| 179         | MBMG179      | Liberty | 31N 08E 24 CCDC 07 25 75 Pond      |                                 |  | Located in Black Coulee          | 730                                  | 23                  | no              | 3100            | 155                                   | 195             | Dahinden, M     |
| 180         | MBMG180      | Liberty | 32N 08E 26 AABA 07 25 75 Well      |                                 |  |                                  | 2080                                 | 13                  | no              |                 |                                       |                 | Dahinden        |



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|-------------|--------------|---------|-----------------------------|---------------------------------|--|------------------|--------------------------------------|----------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|----------------|
| 181         | MBMG181      | Liberty | 32N 07E 34 AB88             | 07 25 75 Well                   |  |                  | 1340                                 | 12                   | no              | 4030              |                                   | 195                    |                 | Seditz         |
| 182         | MBMG182      | Liberty | 35N 06E 17 DB88             | 07 28 75 Spring                 |  |                  | 550                                  | 8                    | no              | 4030              |                                   |                        |                 | Jeppesen, H.   |
| 183         | MBMG183      | Liberty | 35N 06E 17 BA08             | 07 28 75 Reservoir              |  |                  | 310                                  | 21                   | no              | 4120              |                                   |                        |                 | Jeppesen, H.   |
| 184         | MBMG184      | Liberty | 35N 06E 20 DC08             | 07 28 75 Reservoir              |  |                  | 470                                  | 18.5                 | no              | 3680              |                                   |                        |                 | Jeppesen, H.   |
| 185         | MBMG185      | Liberty | 36N 06E 24 CA48             | 07 28 75 Marsh                  |  |                  | 370                                  | 20                   | no              | 4000              |                                   |                        |                 | Andrews, Eruch |
| 186         | MBMG186      | Liberty | 35N 06E 20 CB8A             | 07 28 75 Creek                  |  |                  | 440                                  | 14                   | no              | 3750              |                                   |                        |                 | Cicon, James   |
| 187         | MBMG187      | Liberty | 35N 06E 28 CA0A             | 07 28 75 Reservoir              |  |                  | 620                                  | 22                   | no              | 3620              |                                   |                        |                 | Murray, Al     |
| 188         | MBMG188      | Liberty | 35N 06E 28 CA0A             | 07 28 75 Creek                  |  |                  | 510                                  | 17                   | no              | 3620              |                                   |                        |                 |                |
| 189         | MBMG189      | Liberty | 35N 06E 27 AD0A             | 07 28 75 Well                   |  |                  | 1220                                 | 18                   | no              | 3480              |                                   | 60                     |                 | Cicon, J.      |
| 190         | MBMG190      | Liberty | 35N 06E 27 AD0A             | 07 28 75 Well                   |  |                  | 1780                                 | 14                   | no              | 3480              |                                   |                        |                 | Cicon          |
| 191         | MBMG191      | Liberty | 36N 06E 26 BB8A             | 07 28 75 Well                   | 3 gpm  |                  | 4300                                 | 18.5                 | no              | 3480              | 20                                | 152                    |                 | Chen, J.       |
| 192         | MBMG192      | Liberty | 36N 07E 31 AD0A             | 07 28 75 Well                   |  |                  | 2620                                 | 15                   | no              | 3180              |                                   | 20                     |                 | Temple, Ed     |
| 193         | MBMG193      | Liberty | 36N 07E 31 AD0A             | 07 28 75 Well                   |  |                  | 2620                                 | 15                   | no              | 3180              |                                   | 120                    |                 | Temple, Ed     |
| 194         | MBMG194      | Liberty | 36N 07E 03 BB08             | 07 28 75 Well                   |  |                  | 2430                                 | 18.3                 | no              | 3360              |                                   | 180                    |                 | Temple, Ed     |
| 195         | MBMG195      | Liberty | 36N 07E 30 AC0D             | 07 28 75 Well                   |  |                  | 1440                                 | 16.8                 | no              | 3400              |                                   | 820                    |                 | Temple, Ernest |
| 196         | MBMG196      | Liberty | 35N 07E 30 AD0D             | 07 28 75 Reservoir              |  |                  | 1800                                 | 24                   | no              | 3370              |                                   |                        |                 | Temple, Ernest |
| 197         | MBMG197      | Liberty | 35N 07E 12 DB08             | 07 27 75 Well                   | 40 gpm (M)                                     |                  | 1860                                 | 12                   | no              | 3260              | 20                                | 147                    |                 | Hodges, Dean   |
| 198         | MBMG198      | Liberty | 35N 07E 12 DB08             | 07 27 75 Well                   |  |                  | 2610                                 | 18                   | no              | 3260              | 12                                | 31                     |                 | Gifford, A.    |
| 199         | MBMG199      | Liberty | 35N 07E 23 AC0C             | 07 27 75 Well                   |  |                  | 1970                                 | 15.5                 | no              | 3240              |                                   |                        |                 | Wood, Thomas   |
| 200         | MBMG200      | Liberty | 35N 07E 17 AA08             | 07 27 75 Well                   |  |                  | 1770                                 | 12                   | no              | 3320              | 80                                | 120                    |                 | Land, Robert   |
| 201         | MBMG201      | Liberty | 35N 06E 23 BA08             | 07 27 75 Well                   |  |                  | 19110                                | 15.5                 | no              | 3480              | 75                                | 80                     |                 | Gundersen, Ed  |
| 202         | MBMG202      | Liberty | 35N 06E 26 CB0C             | 07 27 75 Well                   |  |                  | 4100                                 | 17                   | no              | 3480              |                                   |                        |                 | Scheller, D.   |
| 203         | MBMG203      | Liberty | 35N 06E 35 AD08             | 07 27 75 Well                   |  |                  | 5010                                 | 14                   | no              | 3420              | 60                                | 84                     |                 | Jensen         |
| 204         | MBMG204      | Liberty | 35N 07E 21 CD0D             | 07 27 75 Well                   | Stock use                                      |                  | 1830                                 | 19.5                 | no              | 3230              | 30                                | 119                    |                 | Joy, F.        |
| 205         | MBMG205      | Liberty | 35N 07E 35 AC0C             | 07 28 75 Well                   |  |                  | 4850                                 | 10.8                 | no              | 3300              |                                   |                        |                 | Rioo           |
| 206         | MBMG206      | Liberty | 35N 07E 14 BA0A             | 07 28 75 Well                   | Domestic use except for drinking               |                  | 1400                                 | 11                   | no              | 3270              | 30                                |                        |                 | Richter        |
| 207         | MBMG207      | Liberty | 35N 07E 14 CB0D             | 07 28 75 Spring                 |  |                  | 2810                                 | 20                   | no              | 3380              |                                   |                        |                 | McDonnell, J.  |
| 208         | MBMG208      | Liberty | 35N 07E 14 CB0D             | 07 28 75 Spring                 | Domestic use except for drinking               |                  | 2810                                 | 14                   | no              | 3380              | 35                                | 145                    |                 | McDonnell, J.  |
| 209         | MBMG209      | Liberty | 35N 07E 18 BA0A             | 07 28 75 Well                   |  |                  | 1460                                 | 6.8                  | no              | 3370              | 8                                 | 15                     |                 | McDonnell, J.  |
| 210         | MBMG210      | Liberty | 34N 06E 03 BB0D             | 07 28 75 Well                   |  |                  | 1070                                 | 7                    | no              | 3460              | 13                                | 28                     |                 | Mattson, A.    |

SHELBY 1" x 2" Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>number | County  | Location<br>T R Sec Tract     | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E-estimated<br>M-measured | Site description | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>feet<br>(ft.) | Static<br>well<br>depth<br>(ft.) | Aquifer<br>code | Donor's name   |
|-------------|-----------------|---------|-------------------------------|---------------------------------|--|------------------|--------------------------------------|----------------------|-----------------|---------------------------|----------------------------------|-----------------|----------------|
| 211         | MBMG211         | Liberty | 34N 07E 01 AAA8 07 28 75 Well |                                 | 3 gpm                                      |                  | 2530                                 | 10.2                 | no              | 3400                      |                                  |                 | Smith, C.      |
| 212         | MBMG212         | Liberty | 34N 07E 31 CCC8 07 28 75 Well |                                 |  |                  | 2890                                 | 16.0                 | no              | 3380                      | 50                               |                 | Middlem, L.    |
| 213         | MBMG213         | Liberty | 34N 07E 05 ADAA 07 28 75 Well |                                 |  |                  | 2570                                 | 15.8                 | no              | 3340                      | 15                               | 85              | Johnson, V.    |
| 214         | MBMG214         | Liberty | 34N 07E 04 ACBC 07 28 75 Well |                                 |  |                  | 1360                                 | 15.5                 | no              | 3320                      | 6                                | 12              | Miller, L.     |
| 215         | MBMG215         | Liberty | 34N 07E 04 ACBC 07 28 75 Well |                                 |  |                  | 5080                                 | 16.4                 | no              | 3320                      | 60                               | 70              | Miller, L.     |
| 216         | MBMG216         | Liberty | 34N 07E 04 ACBD 07 28 75 Well |                                 | 4.5 gpm                                    |                  | 5500                                 | 10                   | no              | 3200                      |                                  |                 | Miller, L.     |
| 217         | MBMG217         | Liberty | 34N 07E 33 DDD8 07 28 75 Well |                                 |  |                  | 5360                                 | 15                   | no              | 3320                      |                                  |                 | Miller, E.     |
| 218         | MBMG218         | Liberty | 34N 07E 03 ADAA 07 28 75 Well |                                 | 2.5 gpm                                    |                  | 360                                  | 25.5                 | no              | 3240                      | 40                               | 115             | Middlem, F.    |
| 219         | MBMG219         | Liberty | 34N 07E 03 ADAA 07 28 75 Well |                                 |  |                  | 5360                                 | 10.8                 | no              | 3260                      |                                  |                 | Middlem, F.    |
| 220         | MBMG220         | Liberty | 34N 07E 11 DDD8 07 28 75 Well |                                 |  |                  | 6170                                 | 12                   | no              | 3240                      |                                  |                 | May            |
| 221         | MBMG221         | Liberty | 34N 07E 13 DDD8 07 28 75 Well |                                 |  |                  | 5400                                 | 15                   | no              | 3240                      | 15                               | 112             | Kenton, H.     |
| 222         | MBMG222         | Liberty | 34N 07E 12 DDD8 07 28 75 Well |                                 |  |                  | 310                                  | 28.8                 | no              | 3240                      |                                  |                 | Lakin, P.      |
| 223         | MBMG223         | Liberty | 33N 08E 22 BCCC 07 28 75 Well |                                 | 13 gpm                                     |                  | 1310                                 | 13.8                 | no              | 3300                      | 280                              | 570             | Green, Charles |
| 224         | MBMG224         | Liberty | 33N 08E 18 ADAC 07 28 75 Well |                                 | 13 gpm                                     |                  | 2080                                 | 13.1                 | no              | 3320                      | 150                              | 500             | Kenton, D.     |
| 225         | MBMG225         | Liberty | 34N 07E 17 DDD8 07 28 75 Well |                                 |  |                  | 2680                                 | 10                   | no              | 3300                      |                                  |                 | Haydon, C.     |
| 226         | MBMG226         | Liberty | 34N 07E 20 DDD8 07 28 75 Well |                                 | 8 gpm                                      |                  | 3080                                 | 10.5                 | no              | 3400                      | 110                              |                 | Sundgren, W.   |
| 227         | MBMG227         | Liberty | 34N 07E 06 DDD8 07 28 75 Well |                                 |  |                  | 3240                                 | 15                   | no              | 3470                      | 240                              |                 | Miller         |
| 228         | MBMG228         | Liberty | 33N 07E 05 DDD8 07 29 78 Well |                                 |  |                  | 290                                  | 19.5                 | no              | 3470                      |                                  |                 | Miller         |
| 229         | MBMG229         | Liberty | 33N 07E 10 DDD8 07 28 75 Well |                                 | 5 gpm                                      |                  | 4880                                 | 17                   | no              | 3350                      | 180                              | 280             | Thiessen       |
| 230         | MBMG230         | Liberty | 33N 07E 03 DAD8 07 29 76 Well |                                 |  |                  | 250                                  | 23                   | no              | 3380                      |                                  |                 | Sundgren, A.   |
| 231         | MBMG231         | Liberty | 33N 07E 17 ADD8 07 29 75 Well |                                 |  |                  | 950                                  | 8.6                  | no              | 3420                      | 25                               |                 | Foster, R.     |
| 232         | MBMG232         | Liberty | 33N 07E 22 DDD8 07 28 75 Well |                                 |  |                  | 5910                                 | 10.3                 | no              | 3380                      | 280                              |                 | Lytle, D.      |
| 233         | MBMG233         | Liberty | 33N 07E 28 DDD8 07 29 75 Well |                                 |  |                  | 2380                                 | 11.8                 | no              | 3340                      | 200                              | 300             | Anderson, M.   |
| 234         | MBMG234         | Liberty | 33N 07E 18 ADD8 07 29 75 Well |                                 |  |                  | 4030                                 | 11.7                 | no              | 3190                      | 90                               | 420             | Heimberger     |
| 235         | MBMG235         | Liberty | 33N 06E 14 B8B8 07 30 75 Well |                                 |  |                  | 2430                                 | 14                   | no              | 3300                      | 180                              | 310             | Thiessen, A.   |
| 236         | MBMG236         | Liberty | 33N 06E 35 ADAA 07 30 75 Well |                                 |  |                  |                                      |                      | no              | 3260                      | 15                               | 23              | Shetel, A.     |
| 237         | MBMG237         | Liberty | 33N 06E 01 B8AA 07 30 75 Well |                                 |  |                  |                                      |                      | no              | 3250                      | 300                              | 600             | Shetel, A.     |
| 238         | MBMG238         | Liberty | 33N 06E 01 B8AA 07 30 75 Well |                                 |  |                  |                                      |                      | no              | 3300                      |                                  |                 | Swank, B.      |
| 239         | MBMG239         | Liberty | 33N 06E 12 ADD8 07 30 75 Well |                                 |  |                  |                                      |                      | no              |                           |                                  |                 | Hedford        |
| 240         | MBMG240         | Liberty | 33N 06E 09 07 30 75 Well      |                                 |  |                  | 3640                                 | 14.9                 | no              |                           | 280                              |                 |                |

Former domestic well  
Domestic use

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref.<br>no. | Field<br>number | County  | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E = estimated<br>M = measured | Site description                             | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|--------------------|-----------------|---------|---------------------------|---------------------------------|-----------|--|--|--------------------------------------|----------------------|-----------------|-------------------|--|------------------------|-----------------|--------------|
| 241                | MBMG241         | Liberty | 30N 07E 04 D D C C A      | 07 30 75                        | Well      |  |  | 2210                                 | 11.8                 | no              |                   |  |                        |                 | Van Dassel   |
| 242                | MBMG242         | Liberty | 30N 07E 03 B C B          | 07 30 75                        | Shp       |  |  | 45500                                | 15                   | no              |                   |  |                        |                 | Van Dassel   |
| 243                | MBMG243         | Liberty | 30N 07E 03 B C B          | 07 30 75                        | Well      |  |  | 3670                                 | 22                   | no              |                   |  |                        |                 | Van Dassel   |
| 244                | MBMG244         | Hill    | 32N 08E 16 A A A A        | 01 01 76                        | Well      |  | Domestic use except for drinking             | 4350                                 | 11.5                 | no              | 3200              | 180  |                        |                 | Johnson, A.  |
| 245                | MBMG245         | Hill    | 32N 08E 14 C C C C        | 01 01 76                        | Well      |  | Domestic use except for drinking             | 4000                                 | 12.5                 | no              | 3270              | 160  |                        |                 | Rugstad      |
| 246                | MBMG246         | Hill    | 32N 08E 30 B B D          | 01 01 78                        | Reservoir |  | Reservoir frozen over                        | 400                                  | 5                    | no              | 3300              |  |                        |                 | Tennison     |
| 247                | MBMG247         | Hill    | 32N 08E 28 B B A C        | 01 01 76                        | Well      |  | Domestic use                                 | 4220                                 | 2                    | no              | 3240              | 160  |                        |                 | Meyer, R.    |
| 248                | MBMG248         | Hill    | 32N 08E 28 B C C D        | 01 01 76                        | Reservoir |  | Reservoir frozen over                        | 260                                  | 3.5                  | no              | 3240              |  |                        |                 | Jochim, M.   |
| 249                | MBMG249         | Hill    | 32N 08E 27 C C B C        | 01 01 76                        | Well      |  | Domestic use except for cooking and drinking | 4280                                 | 9.5                  | no              | 3200              | 142  |                        |                 | Jochim, M.   |
| 250                | MBMG250         | Hill    | 32N 08E 27 C C B A        | 01 01 76                        | Reservoir |  | Reservoir frozen over                        | 380                                  | 5                    | no              | 3210              |  |                        |                 | Jochim, M.   |
| 251                | MBMG251         | Hill    | 32N 08E 24 C C C C        | 01 01 76                        | Well      |  | Domestic use                                 | 4850                                 | 2.6                  | no              | 3190              | 76   |                        |                 | Anderson     |
| 252                | MBMG252         | Hill    | 32N 08E 28 D D D A        | 01 01 76                        | Well      |  | Domestic use                                 | 3830                                 | 14                   | no              | 3120              | 134  |                        |                 | Reverman     |
| 253                | MBMG253         | Hill    | 31N 08E 09 A A A A        | 01 01 76                        | Well      |  | Domestic use except for drinking             | 1960                                 | 13                   | no              | 3140              | 100  |                        |                 | Lynch        |
| 254                | MBMG254         | Hill    | 31N 08E 34 C C D D        | 01 01 76                        | Reservoir |  | Reservoir frozen over                        | 360                                  | 1.6                  | no              | 3060              |  |                        |                 | Gatzmer      |
| 255                | MBMG255         | Hill    | 31N 08E 06 A A A D        | 01 02 76                        | Well      | 12 gpm   | Domestic use except for drinking             | 4080                                 | 18.5                 | no              | 3140              | 100  |                        |                 | Moog         |
| 256                | MBMG256         | Hill    | 31N 08E 16 A A D C        | 01 02 76                        | Reservoir |  |  | 410                                  | 6                    | no              | 3190              |  |                        |                 | Holland, D.  |
| 257                | MBMG257         | Hill    | 30N 08E 29 C C D D        | 01 02 76                        | Well      | 9 gpm  | Domestic use except drinking                 | 3830                                 | 3                    | no              | 3160              | 240  |                        |                 | Holland, D.  |
| 258                | MBMG258         | Hill    | 30N 08E 29 C C D D        | 01 02 76                        | Well      |  | Reservoir frozen over                        | 3720                                 | 18                   | no              | 2940              | 240  |                        |                 | Schrauder    |
| 259                | MBMG259         | Hill    | 30N 08E 23                | 01 02 76                        | Reservoir |  | Reservoir frozen over                        | 380                                  | 8.5                  | no              | 2880              |  |                        |                 | Schrauder    |
| 260                | MBMG260         | Hill    | 29N 08E 24 C B D D        | 01 02 76                        | Reservoir |  | Reservoir frozen over                        | 420                                  | 1                    | no              | 2860              |  |                        |                 | Schrauder    |
| 261                | MBMG261         | Hill    | 29N 08E 14 C A C A D      | 01 02 76                        | Pond      |  | Pond frozen over                             | 480                                  | 0.7                  | no              | 2880              |  |                        |                 | Schrauder    |
| 262                | MBMG262         | Hill    | 30N 08E 12 B B B D        | 01 02 76                        | Well      |  | Domestic use                                 | 680                                  | 4.5                  | no              | 2900              | 26   |                        |                 | Solum        |
| 263                | MBMG263         | Hill    | 30N 08E 12 B B B A        | 01 02 76                        | Reservoir |  | Reservoir frozen over                        | 880                                  | 3.6                  | no              | 2900              |  |                        |                 | Solum        |
| 264                | MBMG264         | Hill    | 30N 08E 14 D A D B        | 01 02 76                        | Well      |  | Domestic use                                 | 1890                                 | 2.6                  | no              | 2900              | 60   |                        |                 | Holland      |
| 265                | MBMG265         | Hill    | 30N 08E 34 B C C C        | 01 02 76                        | Creek     |  | East Fork Creek                              | 440                                  | 3.2                  | no              | 2860              |  |                        |                 |              |
| 266                | MBMG266         | Hill    | 30N 10E 31 B D D D        | 01 02 76                        | Well      |  | Domestic and stock use                       | 640                                  | 6.6                  | no              | 2880              | 20   |                        |                 | Davenport    |
| 267                | MBMG267         | Toolie  | 31N 01W 01 D A A B        | 09 10 75                        | Reservoir |  | Stock reservoir                              | 230                                  | 17                   | no              | 3300              |  |                        |                 | McKishie, J. |
| 268                | MBMG268         | Toolie  | 31N 03E 02 A B A          | 09 10 75                        | Reservoir |  |  | 240                                  | 17.8                 | no              | 3220              |  |                        |                 | McIntyre     |
| 269                | MBMG269         | Toolie  | 32N 03E 13 B D C C        | 09 10 75                        | Reservoir |  |  | 320                                  | 16                   | no              | 3140              |  |                        |                 | Dixson, C.   |
| 270                | MBMG270         | Toolie  | 32N 03E 16 C C A D        | 09 10 76                        | Reservoir |  |  | 700                                  | 18.1                 | no              | 3210              |  |                        |                 | Kinyon, R.   |

SHELBY 1' x 2' Sheet (Cont.)  
Specific Conductivity Inventory Sheet (Cont.)

| Map<br>sheet<br>no. | Field<br>number | County | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E - estimated<br>M - measured | Site description | Specific<br>conductivity<br>at 25 °C | field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>depth<br>(ft.) | Anaifer<br>code | Owner's name   |
|---------------------|-----------------|--------|---------------------------|---------------------------------|--|------------------|--------------------------------------|----------------------|-----------------|-------------------|--|-----------------|----------------|
| 217                 | MBMG271         | Toole  | 32N 03E 12 BCBD 09 10 75  | Reservoir                       |  |                  | 420                                  | 17.1                 | no              | 3190              |  |                 | Burd, M.       |
| 217                 | MBMG272         | Toole  | 32N 02E 15 ADAA 09 10 75  | Reservoir                       |  |                  | 560                                  | 16.2                 | no              | 3190              |  |                 | Winters, Owen  |
| 217                 | MBMG273         | Toole  | 32N 02E 08 DADA 09 12 75  | Reservoir                       |  |                  | 980                                  | 14.8                 | no              | 3200              |  |                 | Holmes, R.     |
| 217                 | MBMG274         | Toole  | 32N 02E 09 BCCB 09 12 75  | Reservoir                       |  |                  | 480                                  | 14.8                 | no              | 3210              |  |                 | Bussell, D.    |
| 217                 | MBMG275         | Toole  | 32N 02E 09 ADAD 09 12 75  | Reservoir                       |  |                  | 480                                  | 14.2                 | no              | 3220              |  |                 | Bussell, D.    |
| 218                 | MBMG276         | Toole  | 32N 02E 35 AABA 09 12 75  | Creek                           |  | Willow Creek     | 2060                                 | 13.9                 | no              | 3130              |  |                 | Harwood, R.    |
| 218                 | MBMG277         | Toole  | 32N 02E 28 BADA 09 12 75  | Reservoir                       |  |                  | 680                                  | 15.7                 | no              | 3120              |  |                 | Snuffer, D.    |
| 218                 | MBMG278         | Toole  | 32N 02E 02 DDDA 09 12 75  | Well                            |  |                  | 2050                                 | 14.9                 | no              | 3120              |  |                 | Children, E.   |
| 218                 | MBMG279         | Toole  | 32N 03E 05 CDDC 09 12 75  | Reservoir                       |  |                  | 290                                  | 15.2                 | no              | 3260              |  |                 | Auksted, D.    |
| 280                 | MBMG280         | Toole  | 32N 03E 12 CDDC 09 12 75  | Reservoir                       |  |                  | 190                                  | 15.9                 | no              | 3220              |  |                 |                |
| 281                 | MBMG281         | Toole  | 32N 03E 22 BCBC 09 13 75  | Well                            |  | Domestic use     | 1390                                 | 17                   | no              | 3240              |  |                 | Hanson, B.     |
| 282                 | MBMG282         | Toole  | 32N 03E 22 BCBA 09 13 75  | Well                            |  | Unused           | 380                                  | 9.2                  | no              | 3240              |  |                 | Hanson, B.     |
| 283                 | MBMG283         | Toole  | 32N 01E 11 ACAB 09 13 75  | Reservoir                       |  |                  | 390                                  | 16.2                 | no              | 3200              |  |                 | Kanning, L.    |
| 284                 | MBMG284         | Toole  | 32N 01E 08 ACBA 09 13 75  | Reservoir                       |  |                  | 340                                  | 17.2                 | no              | 3240              |  |                 | Bussell        |
| 285                 | MBMG285         | Toole  | 32N 01E 08 BCBD 09 13 75  | Reservoir                       |  |                  | 400                                  | 16.5                 | no              | 3290              |  |                 | Stewart, B. F. |
| 286                 | MBMG286         | Toole  | 32N 01E 24 CDDC 09 13 75  | Reservoir                       |  |                  | 320                                  | 13.8                 | no              | 3320              |  |                 | Stewart, B. F. |
| 287                 | MBMG287         | Toole  | 32N 01E 22 CABC 09 13 75  | Reservoir                       |  |                  | 370                                  | 16                   | no              | 3350              |  |                 | Hagan, A.      |
| 288                 | MBMG288         | Toole  | 32N 01E 22 CDDC 09 13 75  | Reservoir                       |  |                  | 1260                                 | 12.5                 | no              | 3370              |  |                 | Hagan, A.      |
| 288                 | MBMG289         | Toole  | 31N 02W 01 CABC 09 14 75  | Reservoir                       |  |                  | 1460                                 | 16                   | no              | 3370              |  |                 | Wendrich       |
| 290                 | MBMG290         | Toole  | 31N 01W 03 CBBC 09 14 75  | Reservoir                       |  |                  | 300                                  | 17.5                 | no              | 3360              |  |                 | McLean         |
| 291                 | MBMG291         | Toole  | 31N 02E 24 ACAC 09 14 75  | Reservoir                       |  |                  | 240                                  | 14                   | no              | 3080              |  |                 | Sisk, R.       |
| 292                 | MBMG292         | Toole  | 31N 02E 24 CBBC 09 14 75  | Reservoir                       |  |                  | 200                                  | 14.2                 | no              | 3240              |  |                 | Daniels, D.    |
| 293                 | MBMG293         | Toole  | 31N 02E 22 BBDD 09 14 75  | Well                            |  |                  | 4210                                 | 10.1                 | no              | 3300              | 8  | 12              | Benjamin, J.   |
| 294                 | MBMG294         | Toole  | 30N 01W 11 DDBB 09 14 75  | Well                            |  |                  | 1280                                 | 13.5                 | no              | 3270              |  |                 | Hepner, K.     |
| 296                 | MBMG295         | Toole  | 29N 02E 21 ADBD 09 16 75  | Reservoir                       |  |                  | 4990                                 | 18.2                 | no              | 3400              |  |                 | Nickol, P.     |
| 296                 | MBMG296         | Toole  | 29N 02E 22 BCDB 09 15 75  | Well                            |  |                  | 6090                                 | 16.5                 | no              | 3390              |  |                 | Nickol, P.     |
| 297                 | MBMG297         | Toole  | 29N 02E 21 BCBC 09 15 75  | Well                            |  |                  | 23190                                | 17                   | no              | 3480              |  |                 | Nickol, P.     |
| 298                 | MBMG298         | Toole  | 29N 02E 21 BAAD 09 15 75  | Spring                          |  |                  | 18010                                | 10.9                 | no              | 3470              |  |                 | Jordach, J.    |
| 299                 | MBMG299         | Toole  | 29N 01E 06 BABB 09 15 75  | Well                            |  |                  | 18010                                | 10.9                 | no              | 3470              |  |                 | Nickol, P.     |
| 300                 | MBMG300         | Toole  | 30N 01E 31 CACC 09 16 75  | Well                            |  |                  | 700                                  | 11.2                 | no              | 3660              |  |                 | Russell, Chiff |

## SHELBY 1" x 2" Sheet (con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no. | County   | Location<br>T R Sec. Tract | Collection<br>date | Flow or yield<br>E = estimated<br>M = measured | Site description                   | Specific<br>conductivity<br>at 25°C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name     |
|-------------|--------------|----------|----------------------------|--------------------|--|------------------------------------|-------------------------------------|----------------------|-----------------|-------------------|--------------------------------|------------------------|-----------------|------------------|
| 301         | MBMG301      | Toole    | 30N 01E 31 CACC            | 09 16 75 Well      |  |                                    | 670                                 | 11.5                 | no              | 3560              | 6                              | 12                     |                 | Russel, Cliff    |
| 302         | MBMG302      | Toole    | 30N 01E 31 CACC            | 09 16 75 Well      |  |                                    | 2470                                | 10.8                 | no              | 3560              | 1                              | 9.9                    |                 | Russel, Cliff    |
| 303         | MBMG303      | Toole    | 30N 01E 01 CBCC            | 09 16 75 Well      |  |                                    | 1320                                | 13.2                 | no              | 3250              | 15                             | 24                     |                 | Korhan Stevens   |
| 304         | MBMG304      | Toole    | 30N 01E 11 BACA            | 09 16 75 Well      |  |                                    | 2460                                | 13.3                 | no              | 3160              | 6                              | 6.6                    |                 | Korhan           |
| 305         | MBMG305      | Toole    | 30N 02E 04 CCDC            | 09 16 75 Well      |  |                                    | 1050                                | 14                   | no              | 3220              | 13                             | 21                     |                 | Robertson, M.    |
| 306         | MBMG306      | Toole    | 31N 02E 31 ABDA            | 09 16 76 Reservoir |  |                                    | 300                                 | 18.7                 | no              | 3300              |                                |                        |                 | Dunning, W.      |
| 307         | MBMG307      | Toole    | 32N 01W 11 DCBA            | 09 18 76 Well      |  |                                    | 5810                                | 10.7                 | no              | 3320              |                                |                        |                 | McCarier         |
| 308         | MBMG308      | Toole    | 33N 02W 26 AAAD            | 09 17 75 Reservoir |  |                                    | 3580                                | 16.5                 | no              |                   |                                |                        |                 | Nesbo, J.        |
| 309         | MBMG309      | Toole    | 34N 02W 15 DDDB            | 09 17 75 Well      |  |                                    | 6300                                | 9.8                  | no              | 3300              | 6                              | 12.6                   |                 | Reisk, Louis     |
| 310         | MBMG310      | Toole    | 33N 01W 26 CB8B            | 09 17 76 Reservoir |  |                                    | 6590                                | 13                   | no              | 3300              |                                |                        |                 | Benjamin, H. Jr. |
| 311         | MBMG311      | Toole    | 34N 01W 26 ACCC            | 09 17 75 Well      |  |                                    | 1020                                | 9.2                  | no              | 3490              |                                | 36                     |                 | Collier          |
| 312         | MBMG312      | Toole    | 34N 01E 26 ACCC            | 09 17 75 Well      |  | Willow Creek                       | 1330                                | 16.9                 | no              | 3350              |                                |                        |                 | Johnson, Jay     |
| 313         | MBMG313      | Toole    | 34N 02E 16 CCDD            | 09 17 76 Creek     |  |                                    | 1910                                | 16.9                 | no              | 3300              |                                |                        |                 | Johnson, Jay     |
| 314         | MBMG314      | Toole    | 34N 02E 20 ABBA            | 09 17 76 Well      |  |                                    | 1440                                | 16.8                 | no              | 3620              |                                |                        |                 | Alvstad, Gary    |
| 315         | MBMG315      | Toole    | 33N 03E 01 CBQD            | 09 17 75 Well      |  |                                    | 6420                                | 12                   | no              | 3430              | 10                             | 13.7                   |                 | Markuson, H.     |
| 316         | MBMG316      | Toole    | 33N 03E 01 CCBD            | 09 17 75 Well      |  |                                    | 1300                                | 11.3                 | no              | 3420              | 15                             | 21                     |                 | Markuson, H.     |
| 317         | MBMG317      | Toole    | 33N 03E 23 ACDD            | 09 17 76 Well      |  |                                    | 6440                                | 9.9                  | no              | 3380              |                                | 30                     |                 | Harwood, T.      |
| 318         | MBMG318      | Chouteau | 27N 07E 04 DDCC            | 08 04 76 Reservoir |  | Reservoir contains much vegetation | 190                                 | 21                   | no              | 3170              |                                |                        |                 |                  |
| 319         | MBMG319      | Chouteau | 27N 07E 11 DDAC            | 08 04 76 Reservoir |  |                                    | 220                                 | 20                   | no              | 3220              |                                |                        |                 |                  |
| 320         | MBMG320      | Chouteau | 27N 07E 21 DDDB            | 08 04 76 Reservoir |  |                                    | 260                                 | 20                   | no              | 3230              |                                |                        |                 |                  |
| 321         | MBMG321      | Chouteau | 26N 05E 08 B8BB            | 08 05 76 Well      |  |                                    | 1780                                | 11.5                 | no              | 3400              |                                | 26                     |                 | Witt             |
| 322         | MBMG322      | Chouteau | 27N 05E 26 ACDC            | 08 05 76 Reservoir |  |                                    | 16310                               | 8.8                  | no              | 3210              |                                |                        |                 | Witt             |
| 323         | MBMG323      | Chouteau | 27N 05E 26 CBCC            | 08 05 76 Well      |  |                                    | 1870                                | 7.6                  | no              | 3250              |                                |                        |                 | Witt             |
| 324         | MBMG324      | Chouteau | 27N 05E 35 CBCC            | 08 05 76 Spring    |  |                                    | 9580                                | 10.8                 | no              | 3250              |                                |                        |                 | Witt             |
| 325         | MBMG325      | Chouteau | 26N 04E 06 ABBC            | 08 06 76 Well      |  | Domestic use                       | 4650                                | 13.3                 | no              | 3360              |                                | 20                     |                 | Wiley            |
| 326         | MBMG326      | Chouteau | 29N 05E 06 CCCC            | 09 09 76 Well      | 4 gpm  |                                    | 2340                                | 11                   | no              | 2880              | 220                            |                        |                 | Boehm            |
| 327         | MBMG327      | Chouteau | 29N 05E 06 AABA            | 09 09 76 Well      | 2 gpm  | Domestic use                       | 2040                                | 18                   | no              | 2890              | 320                            |                        |                 | Boehm            |
| 328         | MBMG328      | Chouteau | 29N 05E 16 CCCC            | 09 09 76 Well      |  | Domestic use                       | 1370                                | 11.8                 | no              | 2980              | 200                            | 431                    |                 | Bold             |
| 329         | MBMG329      | Chouteau | 29N 05E 18 CBBC            | 08 09 78 Well      |  |                                    | 4120                                | 11.4                 | no              | 2980              | 200                            | 431                    |                 | Bennett          |
| 330         | MBMG330      | Chouteau | 29N 10E 26 CBCC            | 08 09 78 Well      | 3 gpm  | Domestic use except for drinking   | 4840                                | 13                   | no              | 2890              | 80                             | 460                    |                 | Peterson         |

SHELBY 1" x 2" Sheet (Cont.)  
Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>number | County   | Location<br>T R Sec Tract          | Collection<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                 | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name     |
|-------------|-----------------|----------|------------------------------------|-------------------------|--|----------------------------------|--------------------------------------|---------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|------------------|
| 331         | MBMG331         | Chouteau | 28N 13E 21 AAAA 08 09 76 Well      |                         |  |                                  | 1480                                 | 12                  | no              | 2860              | 20                                | 160                    |                 | Cowan            |
| 332         | MBMG332         | Chouteau | 28N 13E 10 ABBA 08 10 76 Well      |                         |  |                                  | 3580                                 | 21                  | no              | 2720              | 20                                | 200                    |                 |                  |
| 333         | MBMG333         | Chouteau | 28N 13E 05 DDDD 08 10 76 Pond      |                         |  | Located in a creek bed           | 870                                  | 18                  | no              | 2670              |                                   |                        |                 |                  |
| 334         | MBMG334         | Chouteau | 28N 11E 12 DAAA 08 09 76 Well      |                         |  |                                  | 11980                                | 12.1                | no              | 2520              |                                   | 3200                   |                 | Braun            |
| 335         | MBMG335         | Chouteau | 28N 13E 29 DCBA 08 07 76 Creek     |                         | 24 cfs   | Big Sandy Creek                  | 410                                  | 18                  | no              | 2720              |                                   |                        |                 |                  |
| 336         | MBMG336         | Chouteau | 27N 17E 05 BAAA 08 07 76 Well      |                         | 7 gpm  | Stock use                        | 9360                                 | 12.7                | no              | 2780              | 86                                | 225                    |                 | Sorenson         |
| 337         | MBMG337         | Chouteau | 27N 17E 05 BAAA 08 07 76 Reservoir |                         |  | Stock use                        | 1330                                 | 20                  | no              |                   |                                   |                        |                 |                  |
| 338         | MBMG338         | Chouteau | 27N 10E 12 DAAA 08 07 76 Well      |                         |  | Stock use                        | 2250                                 | 14.4                | no              | 2940              |                                   |                        |                 |                  |
| 339         | MBMG339         | Chouteau | 27N 08E 03 BCCA 08 07 76 Well      |                         |  |                                  | 2240                                 | 16.5                | no              | 2980              |                                   |                        |                 |                  |
| 340         | MBMG340         | Chouteau | 27N 13E 27 DDAC 08 10 76 Pool      |                         |  |                                  | 480                                  | 15                  | no              | 3080              |                                   |                        |                 |                  |
| 341         | MBMG341         | Chouteau | 27N 13E 30 CABC 08 09 76 Reservoir |                         |  | Stock use                        | 1020                                 | 19                  | no              | 2720              |                                   | 250                    |                 | Robertson, A     |
| 342         | MBMG342         | Chouteau | 27N 11E 19 CDBD 08 09 76 Well      |                         |  | Domestic use except for drinking | 2310                                 | 18                  | no              | 2860              |                                   |                        |                 |                  |
| 343         | MBMG343         | Chouteau | 27N 10E 25 BDAB 08 09 76 Reservoir |                         |  | Stock reservoir                  | 2300                                 | 20                  | no              | 2940              |                                   |                        |                 |                  |
| 344         | MBMG344         | Chouteau | 28N 10E 03 DDDD 08 09 76 Reservoir |                         |  | Water is not used for drinking   | 230                                  | 20                  | no              | 2940              |                                   |                        |                 | Allard           |
| 345         | MBMG345         | Chouteau | 27N 08E 21 CCEB 08 07 76 Well      |                         |  |                                  | 1120                                 | 10.4                | no              | 3170              |                                   |                        |                 |                  |
| 346         | MBMG346         | Chouteau | 28N 10E 18 ADAB 08 08 76 Reservoir |                         |  |                                  | 330                                  | 15                  | no              | 2900              |                                   |                        |                 | Brauer           |
| 347         | MBMG347         | Chouteau | 28N 13E 11 DAAD 08 09 76 Well      |                         | 30 gpm   | Domestic and stock use           | 1660                                 | 14                  | no              | 3240              | 220                               | 280                    | 211CLRD         | Nepil            |
| 348         | 75M1670         | Chouteau | 28N 04E 02 CCC 08 17 76 Pond       |                         |  | Saline seep project area         | 380                                  | 11                  | yes             | 3330              |                                   | 90                     | 211CLRD         | Union            |
| 349         | 75M2950         | Chouteau | 28N 04E 03 DBDB 04 16 76 Well      |                         |  | Saline seep test area            | 1960                                 | 6                   | yes             | 3360              |                                   |                        | 211CLRD         | Union            |
| 350         | 75M1669         | Chouteau | 28N 04E 03 DDA 09 17 75 Pond       |                         |  | Saline seep test area            | 1280                                 | 11                  | yes             | 3330              |                                   |                        | 211CLRD         | Union            |
| 351         | 75M1672         | Chouteau | 27N 04E 36 DDDC 08 17 76 Pond      |                         | 5 gpm  | Stock use                        | 320                                  | 10                  | yes             | 3330              |                                   |                        | 211CLRD         | Ames             |
| 352         | 75M1142         | Liberty  | 28N 08E 02 ACAD 07 24 76 Spring    |                         |  | Unused                           | 6580                                 | 10                  | yes             | 2780              |                                   | 235                    | 112DRFT         | Good, P.         |
| 353         | 75M1141         | Liberty  | 27N 06E 35 BACC 08 15 76 Well      |                         |  | Unused                           | 2960                                 |                     | yes             | 2780              |                                   |                        |                 | Layton           |
| 354         | 75M1143         | Liberty  | 27N 06E 35 BACC 08 15 76 Well      |                         |  | Pool in Dunklin's Coulee         | 1510                                 | 18.2                | yes             | 3150              |                                   |                        |                 | Spicher, Dayl    |
| 355         | 75M0426         | Hill     | 32N 10E 21                         |                         |  |                                  | 1510                                 |                     | yes             |                   |                                   |                        |                 |                  |
| 356         | 75M0002         | Toolie   | 33N 02W 02 DDDC 12 03 74 Well      |                         |  | Saline seep test area LF-5       | 6280                                 |                     | yes             | 3420              | 13                                | 27                     | 112CLCO         | Fitch, Lester    |
| 357         | 75M0300         | Liberty  | 33N 05E 01 CDDC 07 14 75 Well      |                         |  | Saline seep test area            | 870                                  |                     | yes             | 2860              |                                   |                        |                 | Spicher, Dayl    |
| 358         | 75M1143         | Liberty  | 33N 07E 01 BCCA 07 29 75 Well      |                         |  | Unused                           | 23360                                | 10.5                | yes             | 3330              | 14                                | 58                     | 211CLGT         | James Farms Inc. |
| 359         | 75M0828         | Liberty  | 34N 06E 24 ADDD 07 14 76 Well      |                         |  | Saline seep test area SK-4       | 4800                                 |                     | yes             | 3320              | 8                                 | 58                     | 211CLGT         | Shari            |
| 360         | 75M0831         | Liberty  | 34N 05E 25 ABBD 07 14 76 Well      |                         |  | Saline seep test area SK-6       |                                      |                     | yes             | 3320              | 8                                 | 58                     | 211CLGT         | Shari            |

## SHELBY 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Mon<br>ref. | Field<br>no | County  | Location<br>T R S& Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E=estimated<br>M=measured | Site description             | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Owner's name     |
|-------------|-------------|---------|--------------------------|---------------------------------|--|------------------------------|--------------------------------------|---------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|------------------|
| 361         | 75M1756     | Liberty | 34N 05E 28AABA           | 07 14 75 Well                   |  | Saline seep test area, SK-8  | 1730                                 |                     | yes             | 3320            | 16                              | 59                   | 211GLT          | Skari            |
| 362         | 75M0029     | Liberty | 34N 05E 28DDOC           | 07 14 75 Well                   |  | Saline seep test area, SK-7  | 5010                                 |                     | yes             | 3310            | 22                              | 69                   | 112GLCO         | Skari            |
| 363         | 75M0032     | Liberty | 34N 05E 38BAAA           | 07 14 76 Well                   |  | Saline seep test area, SK-10 | 1360                                 |                     | yes             | 3300            | 10                              | 58                   | 112GLCO         | Skari            |
| 364         | 76M1462     | Liberty | 36N 07E 24CBGA           | 12 04 76 Well                   |  | Saline seep test area, SK-10 | 3620                                 | 11                  | yes             | 3160            |                                 | 6                    | 112GLCO         | Skari            |
| 365         | 75M1071     | Liberty | 37N 07E 31B              | 10 18 75 Spring                 | 20 gpm (E)                                 | Irrigation use               | 1220                                 |                     | yes             | 3160            |                                 |                      | 211JDRV         | Duncan Ranch     |
| 366         | 36M0001     | Toole   | 37N 03W 02 A8            | 02 18 36 Well                   |  | Unused                       |                                      | 8 9                 | yes             | 3525            | 80                              | 180                  | 211VRGL         | U. S. Government |
| 367         | 65M0001     | Toole   | 37N 03W 02 CA            | 10 18 65 Well                   |  | Stock use                    |                                      |                     | yes             | 3586            |                                 | 600                  | 211VRGL         | Dye, Homer       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R S R Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potes-<br>sum<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 7                  | 37N 08E 20 DDDC           | 01 12 77                        | Well   | 7.8             | 1.9                    | 666            | 1.8                  | .02          | .01                    | 8.3                           | 1090                                    | 2.4                                  | 24               | 520                           |
| 13                 | 36N 10E 06 DDDC           | 01 12 77                        | Well   | 9.8             | 2.8                    | 875            | 2.6                  | .23          | <.01                   | 8.4                           | 1454                                    |                                      | 36               | 663                           |
| 15                 | 36N 10E 21 BDBA           | 01 12 77                        | Well   | 95.4            | 39.4                   | 1145           | 6                    | .04          | .02                    | 8.3                           | 724                                     | 11                                   | 78               | 2070                          |
| 16                 | 36N 09E 28 ABAB           | 01 12 77                        | Well   | 3.3             | .9                     | 520            | 1.5                  | .04          | .01                    | 8.0                           | 1144                                    |                                      | 152              | 6.8                           |
| 18                 | 36N 10E 32 DAAA           | 01 12 77                        | Well   | 3.9             | .9                     | 548            | 1.8                  | .06          | .01                    | 8.1                           | 934                                     |                                      | 221              | 116                           |
| 21                 | 35N 08E 26 B8BC           | 01 13 77                        | Well   | 10.8            | 2.8                    | 870            | 2.4                  | .03          | .01                    | 9.2                           | 1780                                    |                                      | 196              | 154                           |
| 22                 | 35N 08E 01 A888           | 01 13 77                        | Well   | 5.2             | 1.4                    | 745            | 1.7                  | .26          | .01                    | 8.1                           | 834                                     |                                      | 658              | 8.8                           |
| 23                 | 35N 10E 04 CBCC           | 01 12 77                        | Well   | 60.4            | 19.9                   | 800            | 3.4                  | .02          | .01                    | 8.5                           | 756                                     |                                      | 21               | 1243                          |
| 26                 | 35N 08E 33 DAAA           | 01 13 77                        | Well   | 17.9            | 6.4                    | 1325           | 3.2                  | .11          | .01                    | 8.8                           | 1553                                    |                                      | 78               | 1525                          |
| 28                 | 34N 08E 22 B8CC           | 01 13 77                        | Well   | 160             | 154                    | 196            | 17.5                 | .21          | 3.85                   | 8.6                           | 721                                     |                                      | 14               | 822                           |
| 31                 | 33N 08E 05 B8AA           | 01 13 77                        | Well   | 8.7             | 2.2                    | 845            | 2                    | .18          | .01                    | 8.3                           | 544                                     | 20                                   | 203              | 1082                          |
| 34                 | 34N 12E 19 B8BD           | 01 11 77                        | Well   | 11.4            | 5.5                    | 596            | 3.8                  | .05          | <.01                   | 10.3                          | 541                                     | 10.1                                 | 46               | 674                           |
| 37                 | 34N 10E 14 B8AB           | 01 12 77                        | Well   | 94              | 41                     | 468            | 5.4                  | .84          | .07                    | 10.3                          | 471                                     |                                      | 19               | 909                           |
| 39                 | 34N 10E 14 B8AA           | 01 12 77                        | Well   | 84.5            | 45                     | 390            | 2.8                  | .07          | .05                    | 12.0                          | 512                                     |                                      | 18               | 706                           |
| 44                 | 35N 11E 31 DCCC           | 01 12 77                        | Well   | 17.4            | 4.6                    | 1095           | 3.4                  | .05          | <.01                   | 9.8                           | 842                                     |                                      | 47               | 1667                          |
| 45                 | 34N 11E 24 DDDD           | 01 11 77                        | Well   | 27.4            | 16.9                   | 1390           | 50.8                 | .23          | <.01                   | 25.8                          | 1235                                    | 71.5                                 | 27               | 1930                          |
| 60                 | 33N 10E 07 D              | 01 13 77                        | Well   | 5.8             | 2.2                    | 1105           | 3                    | .06          | <.01                   | 8.9                           | 717                                     |                                      | 1340             | 1.5                           |
| 61                 | 33N 08E 15 B8CC           | 01 12 77                        | Well   | 254             | 193                    | 3430           | 11.9                 | .05          | .07                    | 4.7                           | 484                                     |                                      | 458              | 7335                          |
| 64                 | 33N 09E 28 DDA            | 01 12 77                        | Well   | 7.2             | 1.9                    | 680            | 1.8                  | .06          | .02                    | 8.7                           | 888                                     |                                      | 20               | 709                           |
| 104                | 29N 10E 18 CDDC           | 01 14 77                        | Well   | 3.8             | 1                      | 740            | 1.8                  | .08          | <.01                   | 9.0                           | 876                                     |                                      | 687              | .8                            |
| 105                | 29N 10E 78 CBBD           | 01 14 77                        | Well   | 5.5             | 1.5                    | 870            | 1.9                  | .32          | .01                    | 7.2                           | 605                                     |                                      | 1035             | 1.6                           |
| 106                | 28N 11E 22 B8AD           | 01 14 77                        | Well   | 153             | 52                     | 16.3           | 9.1                  | .08          | .01                    | 13.3                          | 375                                     |                                      | 26               | 207                           |
| 107                | 28N 12E 33 CCCC           | 01 14 77                        | Well   | 8.2             | 2.3                    | 1220           | 3.1                  | .52          | .02                    | 7.8                           | 677                                     |                                      | 1524             | 2.1                           |
| 108                | 36N 07E 03 BQAB           | 04 12 76                        | Well   | 58              | 37                     | 84             | 2.9                  | .02          | .07                    | 4.0                           | 187                                     |                                      | 25               | 308.3                         |
| 109                | 36N 07E 03 B8DD           | 04 12 76                        | Well   | 47.6            | 24                     | 41.4           | 2.2                  | .04          | .01                    | 3.4                           | 158                                     |                                      | 11               | 155                           |
| 110                | 36N 07E 03 BQAD           | 04 12 76                        | Well   | 51.5            | 35.5                   | 95             | 2.9                  | .04          | .05                    | 3.5                           | 181                                     |                                      | 21               | 316.7                         |
| 111                | 36N 07E 24 C8CA           | 12 04 76                        | Well   | 515             | 138                    | 218            | 5.2                  | .07          | .08                    | 11.5                          | 352                                     |                                      | 116              | 1769                          |
| 112                | 36N 07E 34 CCCC           | 12 04 76                        | Well   | 10.6            | 3.4                    | 860            | 2.5                  | .06          | .01                    | 8.4                           | 1013                                    |                                      | 10               | 1053                          |
| 113                | 34N 07E 12 CCCC           | 12 06 76                        | Well   | 47.8            | 19.8                   | 1920           | 5.5                  | .14          | .02                    | 10.9                          | 1795                                    |                                      | 43               | 2805                          |
| 114                | 34N 07E 18 AABA           | 12 04 76                        | Well   | 42.8            | 14                     | 1500           | 4.4                  | .45          | .02                    | 8.1                           | 802                                     |                                      | 97               | 2718                          |
| 115                | 34N 06E 30 BABB           | 04 12 76                        | Well   | 118             | 51.8                   | 200            | 9                    | .10          | .91                    | 9.8                           | 1303                                    |                                      | 22               | 258                           |
| 116                | 34N 07E 27 DABE           | 12 05 76                        | Well   | 27              | 13.2                   | 1800           | 4.4                  | .05          | .01                    | 13.0                          | 3065                                    |                                      | 18               | 1060                          |
| 117                | 33N 07E 21 DADC           | 12 05 76                        | Well   | 26              | 11.2                   | 1570           | 3.8                  | .05          | .02                    | 7.5                           | 588                                     |                                      | 184              | 2668                          |
| 125                | 34N 01E 21 DAAA           | 03 03 76                        | Well   | 39              | 37.2                   | 1250           | 5.8                  | .08          | .01                    | 7.7                           | 1184                                    |                                      | 117              | 1768                          |
| 126                | 32N 02E 01 CCCC           | 12 03 76                        | Creek  | 235             | 166                    | 482            | 25.4                 | 2.30         | 2.80                   | 15.2                          | 976                                     |                                      | 71               | 1407                          |
| 131                | 28N 02E 31 CCCC           | 12 07 76                        | Well   | 485             | 95                     | 145            | 7.1                  | .08          | .78                    | 13.2                          | 281                                     |                                      | 252              | 1240                          |
| 134                | 28N 02W 27 BADA           | 04 14 76                        | Well   | 390             | 1610                   | 2350           | 12                   | .22          | .04                    | 6.5                           | 425                                     |                                      | 974              | 10410                         |
| 135                | 28N 01W 36 ADBC           | 04 14 76                        | Well   | 152             | 107                    | 62             | 8.5                  | .15          | .55                    | 9.2                           | 342                                     |                                      | 28               | 558.3                         |
| 140                | 35N 02W 02 DCAA           | 04 13 76                        | Well   | 692             | 368                    | 258            | 18                   | .13          | .45                    | 8.8                           | 611                                     |                                      | 193              | 2099                          |
| 141                | 29N 13E 34 ABCE           | 01 14 77                        | Well   | 25.4            | 13                     | 710            | 7.1                  | .06          | .14                    | 21.4                          | 912                                     | 9.8                                  | 156              | 817                           |
| 348                | 26N 04E 02 CCC            | 09 17 75                        | Pond   | 40.1            | 22.4                   | 3.6            | 8.1                  | .04          | <.01                   | 14.5                          | 234                                     |                                      | 1.46             | 8.2                           |
| 349                | 26N 04E 03 DBDE           | 04 15 76                        | Well   | 153             | 104                    | 160            | 16                   | .07          | .10                    | 8.0                           | 190                                     |                                      | 48               | 917.8                         |
| 350                | 26N 04E 03 DDA            | 09 17 75                        | Pond   | 78.1            | 78.1                   | 74.5           | 32.2                 | <.01         | <.01                   | 2.1                           | 126                                     |                                      | 9.3              | 580.5                         |
| 351                | 27N 04E 36 CDDC           | 09 17 75                        | Pond   | 20.9            | 12.5                   | 18.4           | 21.4                 | .03          | .01                    | 3.9                           | 162                                     |                                      | 10.2             | 11.2                          |
| 352                | 29N 06E 02 ACAD           | 07 24 76                        | Spring | 257.9           | 88.2                   | 1228           | 10                   | .03          | .01                    | 13.0                          | 659                                     |                                      | 177.5            | 2815                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated



## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluor-<br>ide<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(umho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 7                  | .312           | 1.8                  | 8.33      | 10                   | 2743  | 1771                           | 27  | 898   | 55.5                          | MBMG                 | 280                    | 211JDRV         | Yes                           | 76M1599       |
| 13                 | .158           | .9                   | 8.2       | 9                    | 3437  | 2306                           | 36  | 1190  | 63.5                          | MBMG                 | 120                    | 112DRFT         | Yes                           | 76M1590       |
| 15                 | 12.199         | .4                   | 8.38      | 13                   | 5170  | 3828                           | 400                                       | 612   | 24.9                          | MBMG                 | 160                    | 211JDRV         | Yes                           | 76M1589       |
| 16                 | .542           | 1.8                  | 8.24      | 9                    | 7053  | 1258                           | 12  | 938   | 65.5                          | MBMG                 | 270                    | 211JDRV         | Yes                           | 76M1591       |
| 18                 | .111           | .3                   | 8.08      | 12                   | 2248  | 1360                           | 13  | 766   | 64.8                          | MBMG                 | 240                    | 211JDRV         | Yes                           | 76M1588       |
| 21                 | .7             | .6                   | 8.09      | 11                   | 3382  | 2123                           | 38  | 1460  | 81.0                          | MBMG                 | 200                    | 211JDRV         | Yes                           | 76M1598       |
| 22                 | .029           | .8                   | 8.03      | 4                    | 3242  | 1840                           | 19  | 684   | 74.9                          | MBMG                 | 200                    | 211JDRV         | Yes                           | 76M1597       |
| 23                 | 4.179          | 1.2                  | 8.12      | 11                   | 3593  | 2544                           | 233                                       | 620   | 22.8                          | MBMG                 | 226                    | 211JDRV         | Yes                           | 76M1587       |
| 26                 | <.023          | .4                   | 8.08      | 9                    | 5168  | 3730                           | 71  | 1270  | 68.4                          | MBMG                 | 185                    | 211JDRV         | Yes                           | 76M1596       |
| 28                 | .043           | .2                   | 7.92      | 16                   | .2328                                       | 1736                           | 1030                                      | 600   | 2.7                           | MBMG                 | 20                     | 112DRFT         | Yes                           | 76M1595       |
| 31                 | .106           | 1.0                  | 8.70      | 9                    | 3748  | 2420                           | 31  | 480   | 56.3                          | MBMG                 | 230                    | 211JDRV         | Yes                           | 76M1594       |
| 34                 | 8.246          | .7                   | 8.49      | 9                    | 2688  | 1633                           | 51  | 461   | 26.3                          | MBMG                 | 75                     | 211JDRV         | Yes                           | 76M1592       |
| 37                 | .025           | .3                   | 7.69      | 9                    | 2708  | 1780                           | 403                                       | 386   | 10.1                          | MBMG                 | 68                     | 112DRFT         | Yes                           | 76M1584       |
| 29                 | .056           | .8                   | 8.03      | 9                    | 2228  | 1509                           | 396                                       | 420   | 8.5                           | MBMG                 | 17                     | 112DRFT         | Yes                           | 76M1585       |
| 44                 | .328           | .4                   | 8.09      | 18                   | 4544  | 3250                           | 62  | 681   | 60.3                          | MBMG                 | 205                    | 211JDRV         | Yes                           | 76M1686       |
| 45                 | 20.322         | .3                   | 8.80      | 9                    | 5739  | 4169                           | 138                                       | 1130  | 51.5                          | MBMG                 |                        | 211JDRV         | Yes                           | 76M1583       |
| 50                 | <.023          | 1.8                  | 8.25      | 8                    | 4929  | 2822                           | 24  | 588   | 96.1                          | MBMG                 | 1077                   |                 | Yes                           | 76M1600       |
| 51                 | 89.006         | .4                   | 8.23      | 9                    | 14110                                       | 12020                          | 1430                                      | 397   | 39.5                          | MBMG                 | 183                    | 211JDRV         | Yes                           | 76M1692       |
| 54                 | .332           | 1.4                  | 8.22      | 10                   | 2837  | 1868                           | 28  | 728   | 58.3                          | MBMG                 | 90                     | 112DRFT         | Yes                           | 76M1593       |
| 104                | .070           | 3.0                  | 8.22      | 10                   | 3184  | 1848                           | 14  | 718   | 87.3                          | MBMG                 | 436                    | 211EGLE         | Yes                           | 76M1607       |
| 105                | .063           | 2.9                  | 8.00      | 12                   | 2956  | 2224                           | 20  | 498   | 84.9                          | MBMG                 | 340                    | 211EGLE         | Yes                           | 76M1606       |
| 106                | 19.202         | .1                   | 8.14      | 14                   | 1128  | 681                            | 598                                       | 308   | 0.3                           | MBMG                 | 32                     | 112DRFT         | Yes                           | 76M1605       |
| 107                | .041           | 1.8                  | 8.11      | 14                   | 5475  | 3103                           | 30  | 555   | 97.0                          | MBMG                 | 500                    | 211EGLE         | Yes                           | 76M1608       |
| 108                | .151           | .2                   | 7.74      | 7.1                  | 920   | 810                            | 317                                       | 137   | 2.1                           | MBMG                 | 60                     | 112DRFT         | Yes                           | 76M0240       |
| 109                | .043           | .2                   | 7.71      | 12                   | 575   | 362                            | 218                                       | 129   | 1.2                           | MBMG                 | 60                     | 112DRFT         | Yes                           | 76M0242       |
| 110                | .219           | .2                   | 7.93      | 8.1                  | 933   | 606                            | 275                                       | 132   | 2.5                           | MBMG                 | 35                     | 112DRFT         | Yes                           | 76M0241       |
| 111                | 11.63          | .2                   | 6.98      | 13.3                 | 3246  | 2956                           | 1850                                      | 289   | 2.2                           | MBMG                 | 12                     | 112DRFT         | Yes                           | 76M1461       |
| 112                | 1.02           | .7                   | 8.10      | 5                    | 3494  | 2449                           | 40  | 831   | 58.8                          | MBMG                 | 125                    | 211JDRV         | Yes                           | 76M1464       |
| 113                | .136           | <.1                  | 7.75      | 14                   | 7473  | 5737                           | 201                                       | 1470  | 59.0                          | MBMG                 | 80                     | 211JDRV         | Yes                           | 76M1466       |
| 114                | <.023          | .3                   | 7.64      | 9.2                  | 6138  | 4680                           | 164                                       | 494   | 50.9                          | MBMG                 | 120                    | 211JDRV         | Yes                           | 76M1465       |
| 115                | <.023          | .5                   | 7.79      | 9.5                  | 1706  | 1313                           | 510                                       | 1070  | 3.9                           | MBMG                 | 54                     | 112DRFT         | Yes                           | 76M0243       |
| 116                | .129           | .1                   | 7.59      | 25                   | 5936  | 4246                           | 122                                       | 2510  | 63.1                          | MBMG                 | 100                    | 211JDRV         | Yes                           | 76M1467       |
| 117                | 1.446          | .4                   | 8.02      | 15                   | 6323  | 4762                           | 111                                       | 482   | 64.8                          | MBMG                 | 280                    | 211JDRV         | Yes                           | 76M1468       |
| 125                | .041           | .6                   | 8.07      | 7.7                  | 5138  | 3807                           | 250                                       | 971   | 34.4                          | MBMG                 |                        |                 | Yes                           | 76M1458       |
| 126                | .095           | .4                   | 7.25      | 1.3                  | 3657  | 2888                           | 1270                                      | 800   | 5.9                           | MBMG                 |                        | 211CLRD         | Yes                           | 76M1460       |
| 121                | 22.5           | .3                   | 7.43      | 21                   | 3070  | 2399                           | 1600                                      | 230   | 1.8                           | MBMG                 | 35                     | 112DRFT         | Yes                           | 76M1475       |
| 134                | 35.920         | 2                    | 7.88      | 7                    | 16310                                       | 15600                          | 7600                                      | 349   | 11.7                          | MBMG                 | 34                     | 112DRFT         | Yes                           | 76M0247       |
| 136                | 15.814         | .3                   | 7.75      | 8                    | 1702  | 1108                           | 820                                       | 280   | 0.9                           | MBMG                 | 36                     | 112DTSB         | Yes                           | 76M0246       |
| 140                | 236.754        | .3                   | 7.40      | 11                   | 5439  | 4173                           | 3240                                      | 501   | 2.0                           | MBMG                 | 27                     | 112DRFT         | Yes                           | 76M0244       |
| 141                | .422           | 1.9                  | 8.36      | 16                   | 3076  | 2011                           | 117                                       | 764   | 28.8                          | MBMG                 | 237                    | 112DRFT         | Yes                           | 76M1604       |
| 348                | 2.554          | .1                   | 7.38      | 11                   | 384   | 214                            | 192                                       | 234   | 0.1                           | MBMG                 |                        | 211CLRD         | No                            | 75M1670       |
| 349                | .129           | .2                   | 7.47      | 6                    | 1948  | 1501                           | 810                                       | 156   | 2.4                           | MBMG                 | 90                     | 112DRFT         | Yes                           | 76M0250       |
| 350                | .138           | .2                   | 8.01      | 11                   | 1278  | 917                            | 517                                       | 126   | 1.0                           | MBMG                 |                        | 211CLRD         | No                            | 75M1688       |
| 351                | 2.011          | .1                   | 7.27      | 10                   | 329   | 178                            | 104                                       | 182   | 1.0                           | MBMG                 |                        | 211CLRD         | No                            | 75M1672       |
| 352                | 1.908          | .6                   | 7.98      | 18                   | 5585  | 4916                           | 1010                                      | 558   | 7.1                           | MBMG                 |                        |                 | No                            | 75M1142       |

## Chemical Analyses

| Map<br>ref.<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 353                | 31N 06E 35 BAAC           | 07 25 75                        | Well   | 4.2             | .5                     | 748            | 4.3                   | .14          | <.01                   | 5.3                           | 1300                                    | 253                                  | 198              | 79                            |
| 354                | 32N 01E 26 BACA           | 09 13 75                        | Pond   | 17.5            | 10.8                   | 4370           | 18.1                  | .14          | .01                    | 1.5                           | 1225                                    | 667                                  | 280.5            | 7022                          |
| 355                | 32N 10E 21                | 03 17 75                        | Well   | 2.6             | .6                     | 390            |                       |              |                        |                               | 961                                     |                                      | 39.3             | 10                            |
| 356                | 33N 02W 02 DDCC           | 12 03 74                        | Well   | 706             | 461                    | 307            | 26.7                  | .06          | .27                    | 18.3                          | 474                                     |                                      | 183              | 2706                          |
| 357                | 33N 05E 01 CDCC           | 07 14 75                        | Well   | 65.9            | 31.2                   | 59.5           | 2.7                   | .03          | <.01                   | 10.5                          | 338                                     |                                      | 4.15             | 183.5                         |
| 358                | 33N 07E 01 BCBA           | 07 29 75                        | Well   | 358.0           | 1124.9                 | 6920           | 26.3                  | .16          | 12.50                  | 5.4                           | 1113                                    |                                      | 107.6            | 16170                         |
| 359                | 34N 05E 24 ADDD           | 07 14 75                        | Well   | 146.4           | 53.1                   | 90             | 5                     | .44          | .77                    | 11.7                          | 361                                     |                                      | 7.7              | 448.2                         |
| 360                | 34N 05E 25 ABBD           | 07 14 76                        | Well   | 348.4           | 347.4                  | 523.8          | 3.5                   | .56          | .65                    | 23.7                          | 337                                     |                                      | 35.8             | 3012                          |
| 361                | 34N 05E 26 ABBA           | 07 14 75                        | Well   | 156.5           | 74.4                   | 143            | 4.7                   | .66          | .91                    | 10.5                          | 371                                     |                                      | 13.6             | 676                           |
| 362                | 34N 05E 26 DDCC           | 07 14 75                        | Well   | 166.6           | 132.6                  | 974            | 8                     | .54          | .86                    | 12.5                          | 462                                     |                                      | 15.65            | 2562                          |
| 363                | 34N 05E 36 BAAA           | 07 14 75                        | Well   | 138.5           | 60.7                   | 87             | 3.9                   | .18          | .64                    | 10.7                          | 334                                     |                                      | 10.55            | 477.2                         |
| 364                | 36N 07E 24 CBBA           | 12 04 76                        | Well   | 475             | 1408                   | 8550           | 7                     | .16          | .07                    | 9.5                           | 890                                     | 484                                  | 20340            |                               |
| 365                | 37N 07E 31 B              | 10 18 75                        | Spring | 50.2            | 48.4                   | 143            | 4.4                   | <.01         | <.01                   | 10.7                          | 165                                     | 24.5                                 | 9.2              | 447.5                         |
| 366                | 37N 03W 02 A-B            | 02 18 36                        | Well   | 28              | 17                     | 428*           |                       |              |                        |                               | 666                                     |                                      | 28.5             | 464                           |
| 367                | 37N 03W 02 CA             | 10 19 65                        | Well   | 88              | 13                     | 925*           |                       | 4            |                        |                               | 740                                     |                                      | 18               | 1410                          |

## of Selected Waters (Con't.)

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluor-<br>ide<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>( $\mu$ mho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 353                | .452           | 2.3                  | 9.14      | 9.5                  | 2945  | 1906                           | 13  | 1550  | 319                           | MBMG                 |                        |                 | No                            | 75M1141       |
| 354                | 4.294          | 1.1                  | 9.72      | 18.2                 | 15110   | 13000                          | 87  | 1890  | 312                           | MBMG                 |                        | 112DRFT         | No                            | 75M1378       |
| 355                | .63            |                      | 8.30      |                      | 1510  | 1407                           | 9   | 786   | 55.6                          | Unknown              |                        |                 | No                            | 75W0426       |
| 356                | 1020           | .6                   | 7.17      |                      | 6275  | 5903                           | 389                                       | 389   | 2.2                           | Unknown              |                        |                 | No                            | 75M0002       |
| 357                | .226           | .5                   | 7.29      |                      | 866   | 545                            | 343                                       | 338   | 1.0                           | MBMG                 |                        | 112OTSH         | No                            | 75M0830       |
| 358                | 244.646        | .4                   | 6.64      | 10.5                 | 23350   | 27520                          | 5520                                      | 1110  | 9.3                           | MBMG                 | 200                    |                 | No                            | 75M1143       |
| 359                | .203           | .5                   | 6.90      |                      | 1333  | 944                            | 589                                       | 361   | 0.9                           | MBMG                 |                        | 211CLGT         | No                            | 75M0828       |
| 360                | .8             | 7.02                 |           |                      | 4904  | 4463                           | 2300                                      | 337   | 1.5                           | MBMG                 |                        | 211CLGT         | No                            | 75M0831       |
| 361                | 1.13           | .6                   |           | 6.8                  | 1732  | 1265                           | 697                                       | 371   | 1.2                           | MBMG                 |                        | 211CLGT         | No                            | 75M1756       |
| 362                | 5.243          | .4                   | 6.88      |                      | 5006  | 4126                           | 1010                                      | 482   | 6.1                           | MBMG                 |                        | 112OTSH         | No                            | 75M0829       |
| 363                | .138           | .5                   | 6.79      |                      | 1352  | 954                            | 596                                       | 334   | 0.9                           | MBMG                 |                        | 112OTSH         | No                            | 75M0832       |
| 364                | 971            | .3                   | 8.24      | 11                   | 30420   | 32670                          | 6980                                      | 730   | 44.5                          | MBMG                 |                        | 112DRFT         | Yes                           | 76M1462       |
| 365                | .362           | .3                   | 8.43      |                      | 1219  | 820                            | 325                                       | 190   | 2.9                           | MBMG                 |                        | 211JDRV         | No                            | 75M1671       |
| 366                |                |                      |           |                      |   |                                | 140                                       | 546   |                               | USGS                 | 180                    | 211VRGL         | No                            | 36M0001       |
| 367                | 2.169          | 1.0                  |           | 8.9                  |   |                                | 105                                       | 607   |                               | USGS                 | 800                    | 211VRGL         | No                            | 66M0001       |

## SHELBY 1' x 2' Sheet

## Trace Elements Analyzed Sheet

| Map<br>ref. | Location<br>T R Sec 14ct | Alu-<br>minum<br>(mg/l) | Anti-<br>mony<br>(mg/l) | Ar-<br>senic<br>(mg/l) | Beryl-<br>lumin<br>(mg/l) | Baron<br>mium<br>(mg/l) | Cad-<br>mium<br>(mg/l) | Chro-<br>mium<br>(mg/l) | Copper<br>(mg/l) | Lead<br>(mg/l) | Lith. Me-<br>tium<br>(mg/l) | Nickel<br>(mg/l) | Phosphate<br>(Total)<br>(mg/l) dissolved | Selenium<br>(mg/l) | Silver<br>turn<br>(mg/l) | Stron-<br>tium<br>(mg/l) | Tin<br>(mg/l) | Zinc<br>(mg/l) | Lab<br>number |
|-------------|--------------------------|-------------------------|-------------------------|------------------------|---------------------------|-------------------------|------------------------|-------------------------|------------------|----------------|-----------------------------|------------------|--|--------------------|--------------------------|--------------------------|---------------|----------------|---------------|
| 7           | 37N 08E 20 DDC           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.2                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 185                                      | < 2.0              | 28                       | 27                       | 08            | 76M1595        |               |
| 13          | 37N 10E 05 DDC           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.3                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 17.1                                     | < 2.0              | 39                       | 30                       | 21            | 76M1590        |               |
| 15          | 36N 10E 21 DBA           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 4                         | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.16                                     | 140                | 1.97                     | 55                       | 08            | 76M1585        |               |
| 18          | 36N 09E 28 ABAB          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.5                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 25.1                                     | < 2                | 0.08                     | 09                       | 09            | 76M1591        |               |
| 18          | 36N 10E 32 DAAA          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.4                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.72                                     | < 2                | .1                       | < .05                    | 08            | 76M1586        |               |
| 21          | 36N 08E 26 BBBC          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.8                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 134                                      | 2.5                | 45                       | < .05                    | 21            | 76M1596        |               |
| 23          | 36N 08E 01 ABAB          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.6                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 202                                      | < 2.0              | 24                       | 17                       | 10            | 76M1597        |               |
| 23          | 36N 08E 03 DDC           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.0                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.95                                     | 4.5                | 1.39                     | 17                       | 40            | 76M1587        |               |
| 28          | 36N 08E 37 DAAA          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 2.2                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.49                                     | < 2.0              | 1.07                     | < .05                    | 82            | 76M1596        |               |
| 28          | 34N 08E 27 BBCD          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 2                         | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.38                                     | < 2.0              | 1.4                      | 68                       | 18            | 76M1595        |               |
| 31          | 33N 08E 05 BAAA          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.8                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 218                                      | < 2.0              | 42                       | 15                       | 03            | 76M1594        |               |
| 34          | 34N 12E 19 BCB           | < .05 < 2               | < .05 < 2               | < .05 < 2              | .7                        | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.73                                     | 160                | .33                      | 14                       | 09            | 76M1592        |               |
| 4           | 37 34N 10E 14 BCB        | < .05 < 2               | < .05 < 2               | < .05 < 2              | .4                        | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.92                                     | < 2.0              | 1.98                     | 10                       | 06            | 76M1584        |               |
| 38          | 34N 10E 14 BCAA          | < .05 < 2               | < .05 < 2               | < .05 < 2              | .4                        | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.78                                     | < 2.0              | 1.16                     | 15                       | 13            | 76M1585        |               |
| 44          | 35N 11E 31 DCCC          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1                         | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.85                                     | 32                 | .71                      | .07                      | .20           | 76M1586        |               |
| 48          | 34N 11E 24 CDD           | < .05 < 2               | < .05 < 2               | < .05 < 2              | .4                        | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 284                                      | 13.5               | .79                      | < .05                    | 17            | 76M1593        |               |
| 60          | 33N 10E 07 D             | < .05 < 2               | < .05 < 2               | < .05 < 2              | 4.0                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.26                                     | < 2.0              | .51                      | 24                       | .04           | 76M1600        |               |
| 61          | 33N 09E 16 BCCC          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.1                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.73                                     | 97.6               | .71                      | 1.35                     | 05            | 76M1592        |               |
| 64          | 33N 09E 28 DDA           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.4                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.65                                     | < 2.0              | .3                       | < .05                    | .21           | 76M1593        |               |
| 104         | 29N 10E 16 CCB           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 3.7                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.33                                     | < 2.0              | .25                      | .17                      | .03           | 76M1607        |               |
| 106         | 29N 10E 28 CBB           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 2.2                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.39                                     | 9.5                | .31                      | .34                      | .42           | 76M1606        |               |
| 106         | 29N 11E 27 CBB           | < .05 < 2               | < .05 < 2               | < .05 < 2              | .1                        | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.25                                     | 9.5                | .89                      | .55                      | 3.00          | 76M1606        |               |
| 107         | 29N 12E 33 CCCC          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 2.5                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.42                                     | < 2.0              | .39                      | .39                      | .39           | 76M1608        |               |
| 108         | 36N 07E 03 BCB           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 6                         | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.72                                     | 2.0                | .59                      | 16                       | .03           | 76M160240      |               |
| 108         | 36N 07E 03 BCB           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 5                         | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.16                                     | < 2.0              | .44                      | < .05                    | .02           | 76M160242      |               |
| 110         | 36N 07E 03 BCB           | < .05 < 2               | < .05 < 2               | < .05 < 2              | 5                         | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.13                                     | < 2.0              | .5                       | .08                      | .02           | 76M160241      |               |
| 111         | 36N 07E 24 BCAA          | < .05 < 2               | < .05 < 2               | < .05 < 2              | .1                        | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.42                                     | < 2.0              | .83                      | .25                      | .54           | 76M1606        |               |
| 112         | 36N 07E 34 CCCC          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 1.9                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.72                                     | < 2.0              | .49                      | < .05                    | .34           | 76M1606        |               |
| 113         | 34N 07E 12 CCCC          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 2.6                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.06                                     | < 2.0              | 2.82                     | .11                      | .16           | 76M1606        |               |
| 114         | 34N 07E 19 AABA          | < .05 < 2               | < .05 < 2               | < .05 < 2              | 3.5                       | < .01 < .01             | < .05 < .05            | < .05 < .05             | < .05 < .05      | < .05 < .05    | < .05 < .05                 | < .01 < .01      | 0.52                                     | < 2.0              | 2.19                     | .08                      | .11           | 76M1606        |               |

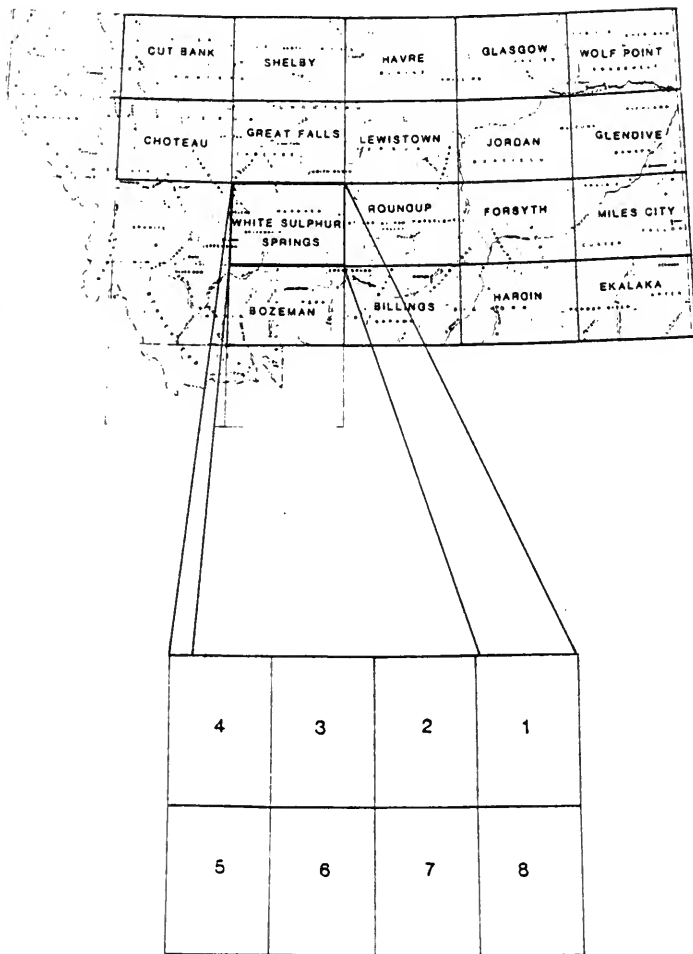
## SHELBY 1" x 2" Sheet (Cont.)

## Trace Elements Analysis Sheet (Cont.)

| Map<br>ref.<br>no | Location<br>T R Sec Tract | Alu-<br>minum<br>mg/l | Anti-<br>mony<br>mg/l | Ar-<br>senic<br>µg/l | Beryl-<br>lumin<br>mg/l | Baron<br>mg/l | Cad-<br>mium<br>mg/l | Copper<br>mg/l | Lead<br>mg/l | Lith. Mer.<br>sum µg/l | Nickel<br>mg/l | Phosphate<br>(Total)<br>mg/l | Selenium<br>µg/l | Silver<br>mg/l | Stron-<br>tium<br>mg/l | Tin<br>mg/l | Zinc<br>mg/l | Lab<br>number |
|-------------------|---------------------------|-----------------------|-----------------------|----------------------|-------------------------|---------------|----------------------|----------------|--------------|------------------------|----------------|------------------------------|------------------|----------------|------------------------|-------------|--------------|---------------|
| 115               | 34N 06E 30 BABB           | < .05                 | < 2                   | 4                    | < 5                     | 2             | < .01                | < .01          | < .01        | 05 .08                 | < 3            | 03 4.30Q                     | < 2.0            |                | 1.68                   | .14         | .06          | 76M1467       |
| 116               | 34N 06E 27 DAB8           | .06                   | < 2                   | < 2.0                |                         | 2.9           | < .01                | < .01          | .28          | < .06                  | .30            | .04                          | .059             | < 2.0          | 1.75                   | .10         | .11          | 76M1467       |
| 117               | 34N 07E 21 DADC           | .08                   | < 2                   | < 2.0                |                         | 2.2           | < .01                | < .01          | < .01        | < .05                  | .17            | .08                          | .114             | < 2.0          | 1.60                   | .08         | .17          | 76M1468       |
| 125               | 34N 01E 21 DAAA           | < .06                 | < 2                   | < 2.0                |                         | 1.6           | < .01                | < .01          | .01          | .06                    | .66            | < 3                          | 03 .033          | < 2.0          | 3.46                   | .13         | .03          | 76M1469       |
| 126               | 32N 02E 01 CCCC           | .12                   | < 2                   | 4.1                  |                         | .7            | < .01                | < .01          | .01          | .07                    | .16            | < 3                          | .04 .38          | 2.5            | 2.46                   | .35         | .30          | 76M1460       |
| 131               | 28N 02E 31 BCCC           | .12                   | 2                     | < 2.0                | < 5                     | 4             | < .01                | .15            | .10          | .10                    | < 3            | .05                          | .023             | 3.9            | 2.49                   | .18         | .09          | 76M1475       |
| 134               | 28N 02W 27 BADA           | .1                    | .26                   | < 2.0                | < 5                     | 3             | .03                  | .04            | .06          | .28                    | .54            | < 3                          | .17              | .066           | 6.60                   | 1.44        | .06          | 76M1475       |
| 135               | 28N 01W 35 BACC           | < .07                 | < 2.0                 | < 5                  |                         | 2             | < .01                | < .01          | .01          | < .05                  | .08            | < 3                          | .02              | .039           | 1.28                   | .20         | .05          | 76M1475       |
| 140               | 28N 01E 35 BACC           | .07                   | .31                   | < 2.0                | < 8                     | .5            | .01                  | .01            | .03          | .15                    | .37            | < 3                          | .17              | .127           | 8.45                   | .35         | .07          | 76M1475       |
| 141               | 29N 13E 34 ABCE           | < .06                 | < 2                   | 2.9                  |                         | 1.1           | < .01                | < .01          | .02          | < .05                  | .07            | < 3                          | < .01            | .085           | .57                    | .65         | .02          | 76M1484       |
| 349               | 26N 04E 03 DBDB           | < .05                 | < 2                   | < 2.0                | < 5                     | 2             | < .01                | < .01          | .01          | < .05                  | .06            | < 3                          | .03              | .056           | 1.81                   | .14         | .06          | 76M1484       |
| 364               | 36N 07E 24 CBCE           | .06                   | 1.8                   | < 2.0                |                         | 1.1           | .07                  | .07            | .38          | 1.04                   | < 3            | .31                          | .046             | 17.20          | 11.2                   | 2.63        | .04          | 76M1482       |



# LOCATION BASE MAP



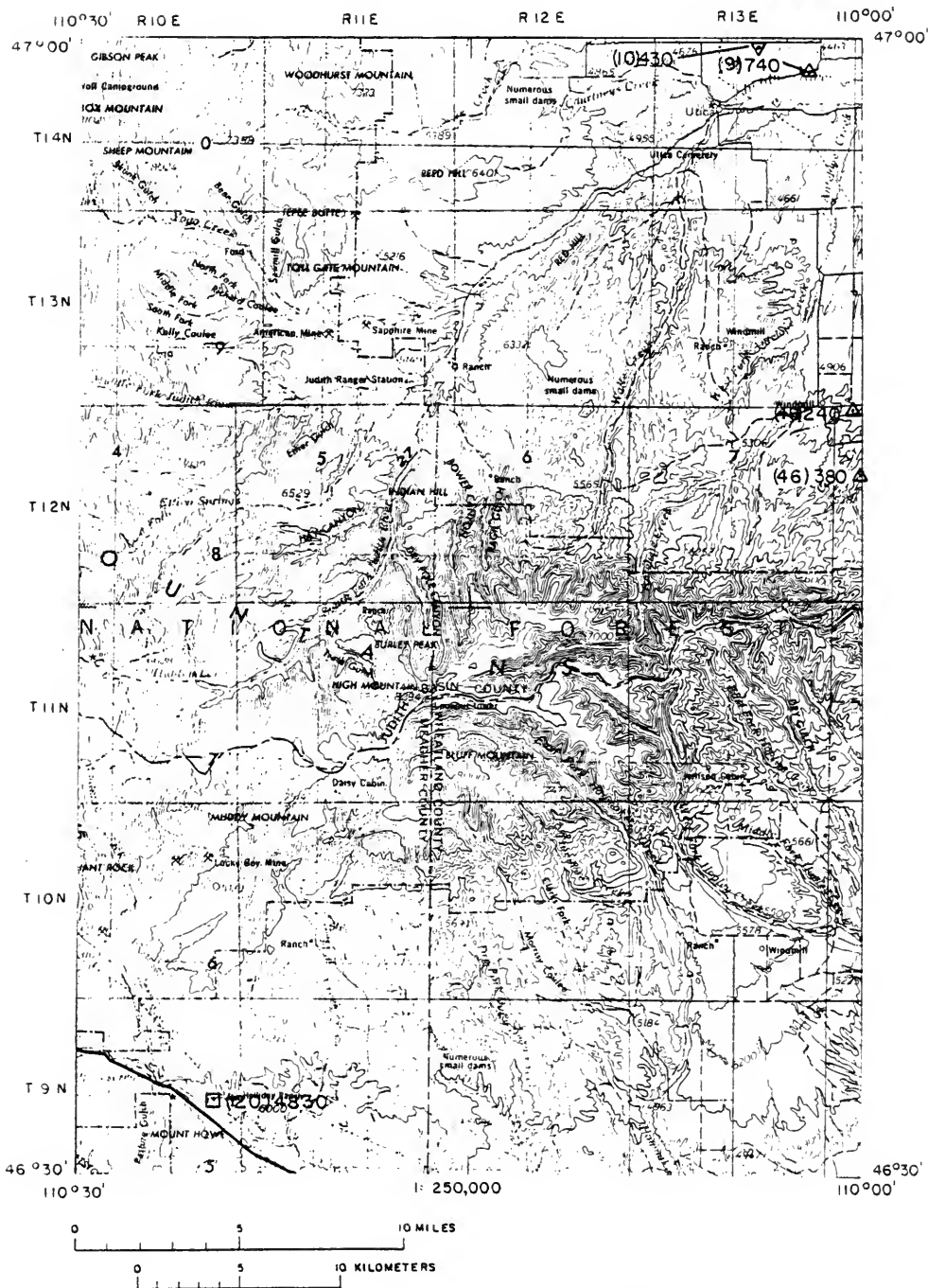
WHITE SULPHUR SPRINGS 1° x 2° SHEET





# SPECIFIC CONDUCTANCE SURVEY

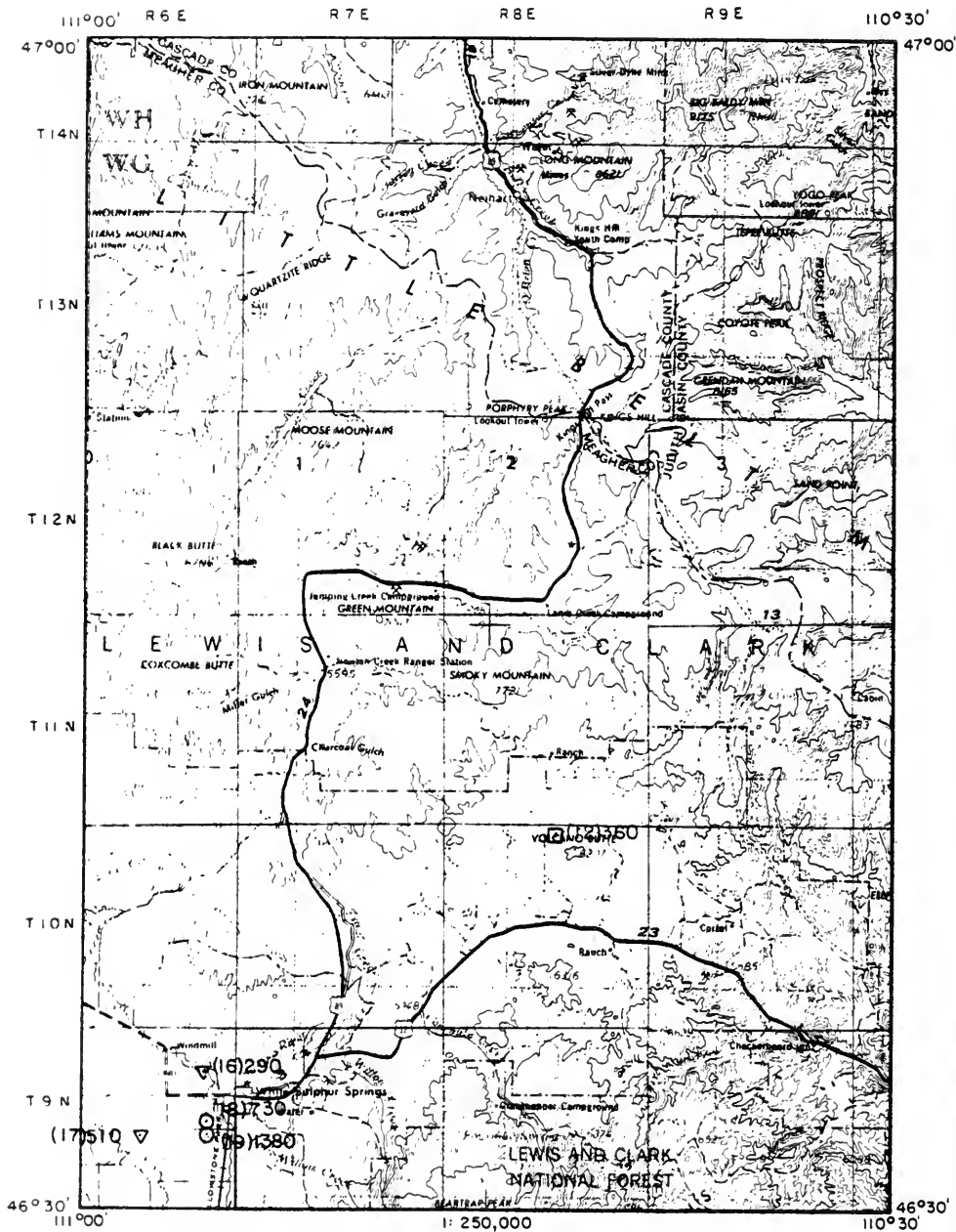
WHITE SULPHUR SPRINGS 1



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

WHITE SULPHUR SPRINGS 2



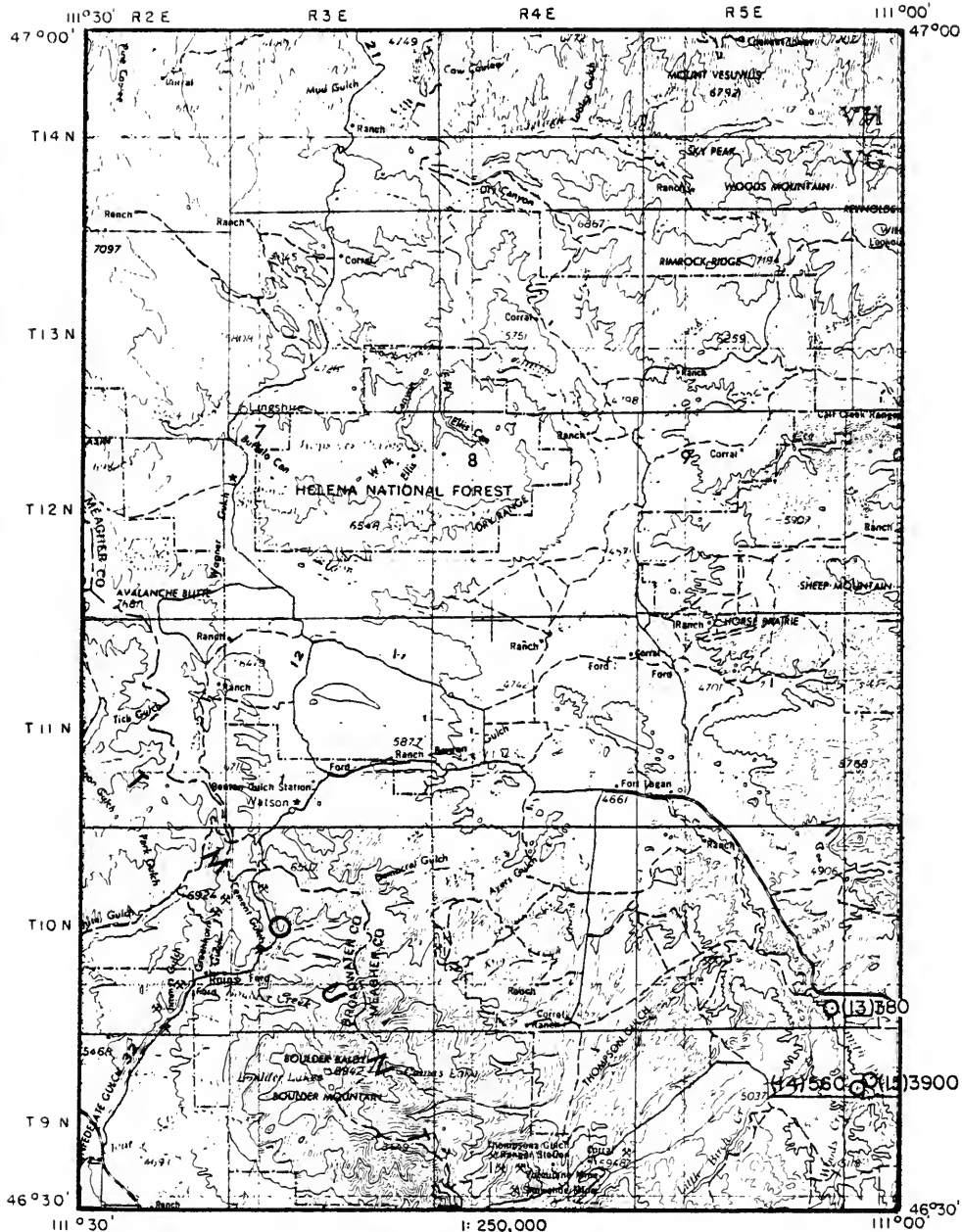
0 5 10 MILES

0 5 10 KILOMETERS

CONTOUR INTERVAL 100 FT

SPECIFIC CONDUCTANCE SURVEY

WHITE SULPHUR SPRINGS 3



CONTOUR INTERVAL 100 FT

## WHITE SULPHUR SPRINGS 4

111°30'

47°00'



CONTOUR INTERVAL 100 FT

## WHITE SULPHUR SPRINGS 5

111°30'

A scale bar with two units. The top scale is in miles, with markings at 0, 5, and 10. The bottom scale is in kilometers, with markings at 0, 5, and 10. The scales are aligned such that 5 miles corresponds to 10 kilometers.

CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

WHITE SULPHUR SPRINGS 6

111°30' R 2 E

R 3 E

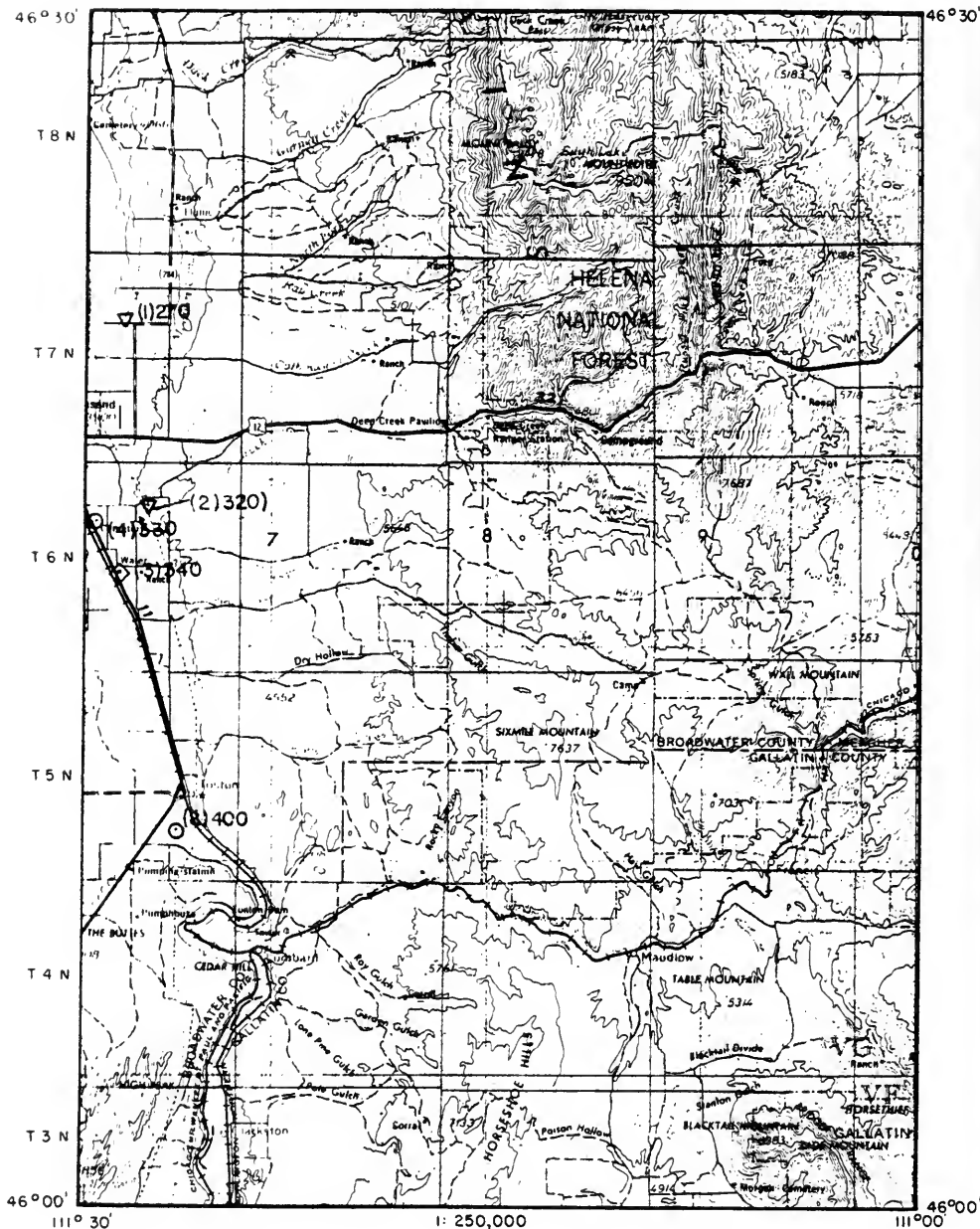
R 4 E

R 5 E

111°00'

46°30'

46°30'



1:250,000

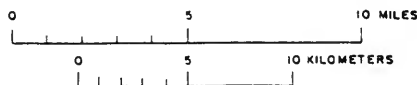
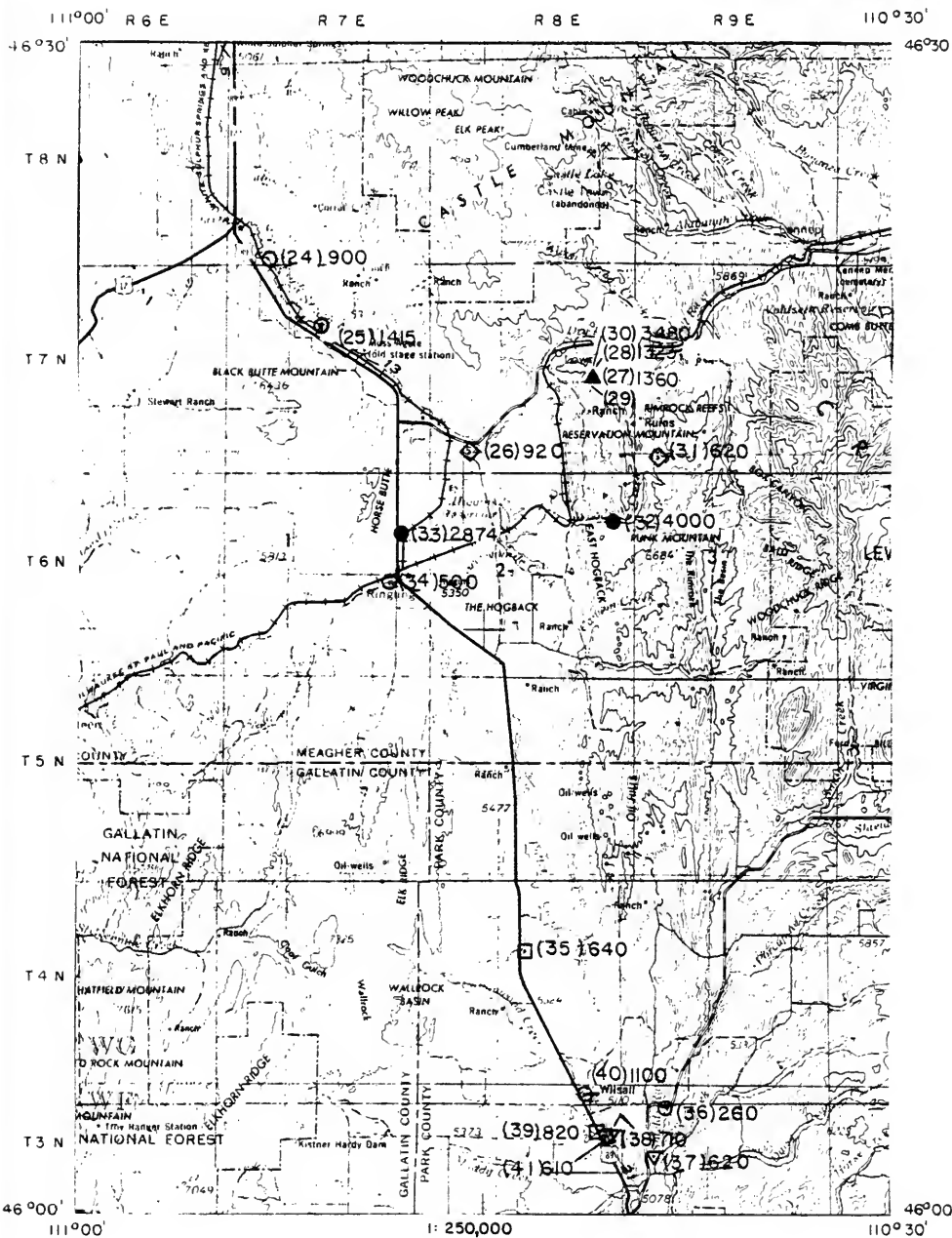
0 5 10 MILES

0 5 10 KILOMETERS

CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

WHITE SULPHUR SPRINGS 7

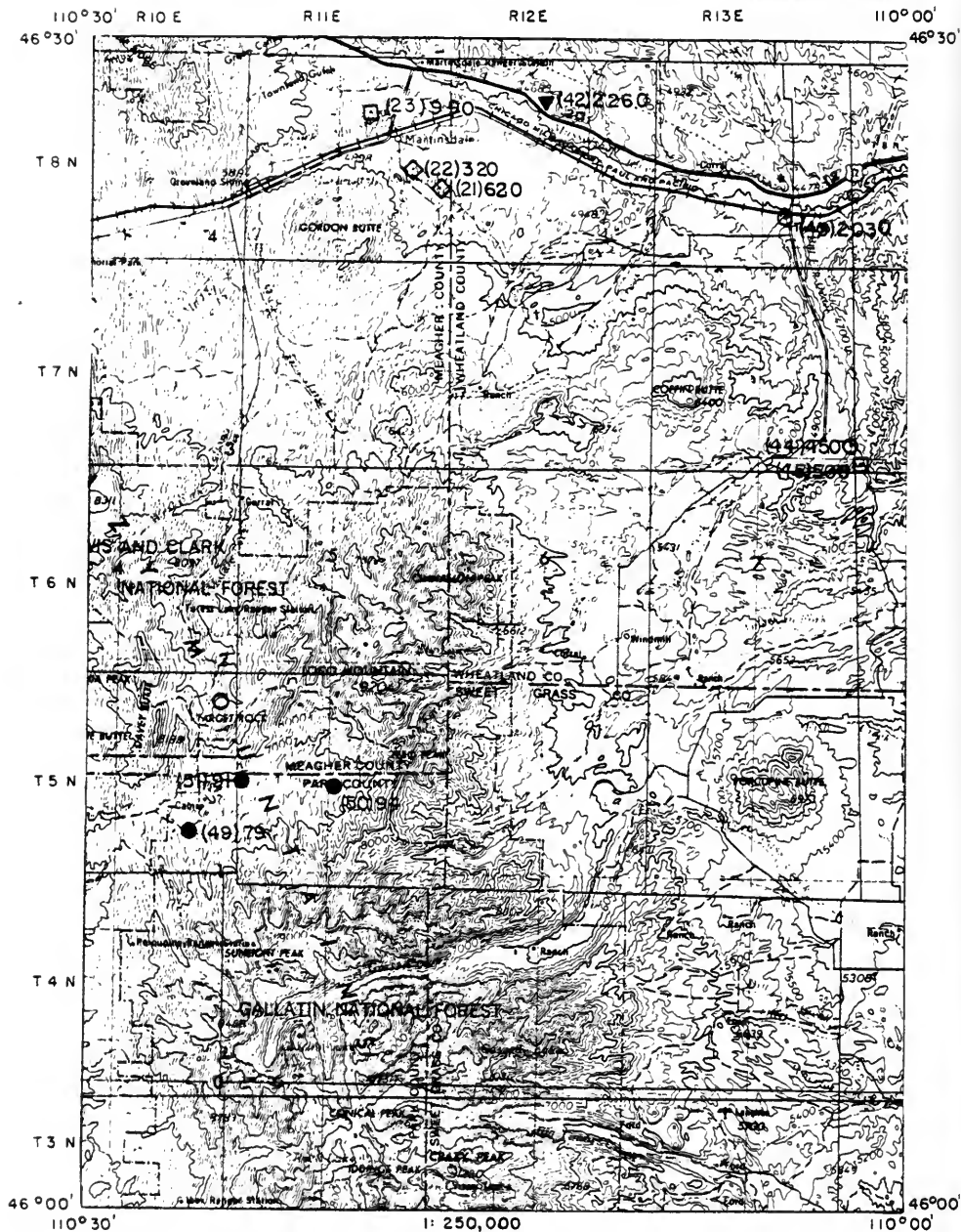


CONTOUR INTERVAL 100 FT



# SPECIFIC CONDUCTANCE SURVEY

WHITE SULPHUR SPRINGS 8





# WHITE SULPHUR SPRINGS 1" x 2" Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref.<br>no. | Field<br>number | County        | Location<br>T. R. Sec. Tract | Collection<br>date<br>Mo. Yr. | Flow or yield<br>E=estimated<br>M=measured | Site description  | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>depth<br>ft. | Well<br>code | Owner's name |
|--------------------|-----------------|---------------|------------------------------|-------------------------------|--|---|--------------------------------------|----------------------|-----------------|-----------------|--|--------------|--------------|
| 1                  | W084            | Broadwater    | 07N 02E 09 DEC               | 09 08 76 Ditch                | 50 cfs (E)                                 | Montana Canal 3 miles NW of Townsend                                | 270                                  | no                   | no              |                 |  |              |              |
| 2                  | W083            | Broadwater    | 06N 02E 10 BAA               | 09 07 76 Ditch                | 40 cfs (E)                                 | Broadwater Canal 1.5 miles SE of Townsend                           | 320                                  | no                   | no              |                 |  |              |              |
| 3                  | W085            | Broadwater    | 06N 02E 21 BAA               | 09 08 76 Spring               | 4 cfs (E)                                  | Small warm spring 0.25 mile N of Gregson Creek                      | 340                                  | no                   | no              |                 |  |              |              |
| 4                  | W081            | Broadwater    | 06N 02E 08 DBO               | 09 07 76 Creek                | 40 cfs (E)                                 | Deep Creek at highway 287   | 330                                  | no                   | no              |                 |  |              |              |
| 5                  | W082            | Broadwater    | 06N 02E 08 CAB               | 09 07 76 Ditch                | 1 cfs (E)                                  | Ditch draining alkali field   | 490                                  | no                   | no              |                 |  |              |              |
| 6                  | W087            | Broadwater    | 06N 02E 19 ADD               | 09 08 76 Creek                | 10 cfs (E)                                 | Crow Creek 3 miles E of Teton                                       | 110                                  | no                   | no              |                 |  |              |              |
| 7                  | W086            | Broadwater    | 06N 02E 19 ADD               | 09 08 76 Ditch                | 5 cfs (E)                                  | Victory Creek 3 miles SE of Teton                                   | 110                                  | no                   | no              |                 |  |              |              |
| 8                  | W088            | Broadwater    | 06N 02E 28 BOC               | 09 08 76 Creek                | 12 cfs (E)                                 | Wagon Creek 2.5 miles SE of Teton                                   | 400                                  | no                   | no              |                 |  |              |              |
| 9                  | MBM62           | Judith Basin  | 14N 13E 11 DDDC              | 09 08 76 Well                 | 1 cfs (E)                                  | Domestic well, moderately hard water                                | 740                                  | 14.5                 | no              | 4338            | 25                                       |              | QJA<br>Perry |
| 10                 | MBM62           | Judith Basin  | 14N 13E 15 DDDC              | 09 08 76 Well                 | 1 cfs (E)                                  | Water hard, residents use water softener                            | 430                                  | 11.5                 | no              | 4420            |  |              |              |
| 11                 | W0830           | Lewis & Clark | 11N 02W 21                   | 11 20 75 Drain                | 1 cfs (E)                                  | Helena Valley, alkali along sides                                   | 870                                  | no                   | no              |                 |  |              |              |
| 12                 | W0815           | Meagher       | 10N 08E 03 BB                | 09 09 76 Pond                 | no flow                                    | Surrounded by sage brush amongst rolling hills                      | 360                                  | no                   | no              |                 |  |              |              |
| 13                 | W0822           | Meagher       | 10N 08E 36                   | 11 03 75 Stream               | 5 cfs (E)                                  | Newland Creek, regraded with some crop land                         | 380                                  | no                   | no              |                 |  |              |              |
| 14                 | W0811           | Meagher       | 09N 08E 07 CA                | 09 08 75 Stream               | 0.25 cfs (E)                               | Badger pasture with buffalo brush and Canadian thistle              | 560                                  | no                   | no              |                 |  |              |              |
| 15                 | W0810           | Meagher       | 09N 08E 07 AC                | 09 08 76 Stream               | 1 cfs (E)                                  | Badger, near field of wild hay                                      | 3800                                 | no                   | no              |                 |  |              |              |
| 16                 | W083            | Meagher       | 09N 08E 12 B                 | 11 03 75 Ditch                | 1 cfs (E)                                  | Irrigation return   | 290                                  | no                   | no              |                 |  |              |              |
| 17                 | W081            | Meagher       | 09N 08E 22 B                 | 10 18 75 Ditch                | 1 cfs (E)                                  | Irrigation into North Fork Smith River                              | 510                                  | no                   | no              |                 |  |              |              |
| 18                 | W0812           | Meagher       | 09N 08E 13 CCC               | 09 08 76 Stream               | 2.5 cfs (E)                                | North Fork Smith River, bottom land hay meadow                      | 730                                  | no                   | no              |                 |  |              |              |
| 19                 | W0816           | Meagher       | 09N 08E 24 BB                | 09 01 76 Stream               | 1 cfs (E)                                  | Branch of Lone Willow Creek   | 1380                                 | no                   | no              |                 |  |              |              |
| 20                 | W0814           | Meagher       | 09N 10E 24 BB                | 09 09 76 Pond                 | no flow                                    | Bag surrounded by prairie grasses, irrigation ditch                 | 4830                                 | no                   | no              |                 |  |              |              |
| 21                 | W084            | Meagher       | 09N 11E 24 D                 | 11 04 75 Spring               | 25 gpm                                     | From hills W of Martinsdale Reservoir, all regraded                 | 620                                  | no                   | no              |                 |  |              |              |
| 22                 | W083            | Meagher       | 09N 11E 23 A                 | 11 04 75 Spring               | 10 gpm                                     | From hills W of Martinsdale Reservoir, all regraded                 | 320                                  | no                   | no              |                 |  |              |              |
| 23                 | W0813           | Meagher       | 09N 07E 08                   | 09 08 76 Ditch                | 2 cfs (E)                                  | From hills W of Martinsdale Reservoir, rolling hills, hay, regraded | 800                                  | no                   | no              |                 |  |              |              |
| 24                 | W0818           | Meagher       | 09N 07E 32                   | 11 04 75 River                | no flow                                    | South Fork Smith River  | 1420                                 | no                   | no              |                 |  |              |              |
| 25                 | W0817           | Meagher       | 07N 07E 08 DQJ               | 09 01 76 River                | 25 gpm (E)                                 | Southeast Fork Musselshell River                                    | 920                                  | no                   | no              |                 |  |              |              |
| 26                 | W087            | Meagher       | 07N 08E 32 B                 | 11 04 75 Spring               | 25 gpm (E)                                 | Original in dryland farming area to E                               | 1360                                 | yes                  | yes             | 6888            |  | 221MRSN      |              |
| 27                 | 58M004          | Meagher       | 07N 08E 23 AA                | 09 02 58 Well                 | 1.5 miles SE of Loveth                     | 1.5 miles SE of Loveth  | 1320                                 | yes                  | yes             | 6898            |  | 217LKOT      |              |
| 28                 | 58M003          | Meagher       | 07N 08E 23 AA                | 09 02 58 Well                 | 1.5 miles SE of Loveth                     | 1.5 miles SE of Loveth  | 1320                                 | yes                  | yes             | 6898            |  | 331MDSN      |              |
| 29                 | 58M007          | Meagher       | 07N 08E 23 AA                | 09 02 58 Well                 | 1.5 miles SE of Loveth                     | 1.5 miles SE of Loveth  | 1320                                 | yes                  | yes             | 6898            |  | 320MDSO      |              |
| 30                 | 58M006          | Meagher       | 07N 08E 23 AA                | 09 02 58 Well                 | 1.5 miles SE of Loveth                     | 1.5 miles SE of Loveth  | 1320                                 | yes                  | yes             | 6898            |  | 320MDSO      |              |

## WHITE SULPHUR SPRINGS 1° x 2° Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no. | County        | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E=estimated<br>M=measured | Site description                                  | Specific<br>conductivity<br>at 25° C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------|--------------|---------------|---------------------------|---------------------------------|-----------|--|---|--------------------------------------|----------------------|-----------------|-------------------|------------------------|-----------------|--------------|
| 31          | WOB6         | Meagher       | 07N 08E 31 DA             | 11 04 75                        | Spring    | 1 cfs (E)                                  | From hills and hay meadows                        | 520                                  | no                   | no              |                   |                        |                 |              |
| 32          | WOB8         | Meagher       | 06N 08E 12 BD             | 11 04 75                        | Stream    | 0.5 cfs (E)                                | From Higgins Reservoir                            | 400                                  | no                   | no              |                   |                        |                 |              |
| 33          | WOB19        | Meagher       | 06N 07E 12 CC             | 09 01 76                        | Stream    | 0.5 cfs (E)                                | From Higgins Reservoir                            | 2874                                 | yes                  | yes             |                   |                        |                 |              |
| 34          | WOB18        | Meagher       | 06N 07E 23 AD             | 09 01 76                        | Stream    | 2 cfs (E)                                  | From Higgins Reservoir                            | 600                                  | no                   | no              |                   |                        |                 |              |
| 35          | WOB8         | Meagher       | 04N 08E 19 BCA            | 09 01 76                        | Pond      |  | On tributary of Potter Creek on highway 89        | 640                                  | no                   | no              |                   |                        |                 |              |
| 36          | WOB4         | Park          | 03N 08E 06 BAB            | 09 08 76                        | River     | 30 cfs (E)                                 | Shields River 3.5 miles N of Willall              | 260                                  | no                   | no              |                   |                        |                 |              |
| 37          | WOB3         | Park          | 03N 08E 07 ADD            | 09 08 76                        | Ditch     | 0.5 cfs (E)                                | Irrigation ditch 2 miles N of Willall             | 620                                  | no                   | no              |                   |                        |                 |              |
| 38          | WOB8         | Park          | 03N 08E 01 DGB            | 09 09 76                        | Drain     | 0.25 cfs (E)                               | Outlet of Cottonwood Reservoir on highway 89      | 710                                  | no                   | no              |                   |                        |                 |              |
| 39          | WOB5         | Park          | 03N 08E 01 CDB            | 09 09 76                        | Reservoir |  | Cottonwood Reservoir 3.3 miles N of Willall       | 820                                  | no                   | no              |                   |                        |                 |              |
| 40          | WOB8         | Park          | 04N 08E 35 DDB            | 09 09 76                        | Creek     | 0.5 cfs (E)                                | Cottonwood Creek above reservoir on highway 89    | 1110                                 | no                   | no              |                   |                        |                 |              |
| 41          | WOB7         | Park          | 03N 08E 01 DGB            | 09 09 76                        | Creek     | 4 cfs (E)                                  | Potter Creek above outlet of Cottonwood Reservoir | 610                                  | no                   | no              |                   |                        |                 |              |
| 42          | WOB31        | Whiteland     | 08N 1E 09 A               | 10 12 76                        | Ditch     | 5 cfs (E)                                  | Ironwood Creek                                    | 2260                                 | yes                  | yes             |                   |                        |                 |              |
| 43          | WOB3         | Whiteland     | 08N 1E 09 A               | 10 12 76                        | Creek     | 0.5 cfs (E)                                | Alkali Creek at Two Dot                           | 2030                                 | no                   | no              |                   |                        |                 |              |
| 44          | WOB24        | Whiteland     | 07N 13E 36                | 09 12 76                        | Creek     | 0.5 cfs (E)                                | Elk Creek   | 480                                  | no                   | no              |                   |                        |                 |              |
| 45          | WOB25        | Whiteland     | 07N 14E 31                | 09 12 76                        | Reservoir |  | Labo Reservoir, much algae bloom                  | 500                                  | no                   | no              |                   |                        |                 |              |
| 46          | MBMG7B       | Judith Basin  | 12N 14E 18 AACD           |                                 | Well      |  | Domestic well, fairly hard water                  | 360                                  | 14                   | no              | 4940              | 29                     |                 | Hollenbeck   |
| 47          | WOB31        | Lewis & Clark | 11N 02W 27                | 04 23 75                        | Sep       |  | Saline seep above Heuser Lake                     | 24400                                | no                   | no              |                   |                        |                 |              |
| 48          | MBMG7        | Judith Basin  | 12N 14E 06 AB8B           |                                 | Well      |  | Residents use water softener                      | 240                                  | 13.6                 | no              | 4840              |                        |                 | Olson        |
| 49          | 76M1968      | Park          | 05N 10E 26 DBA            | 06 07 77                        | Creek     | 96.4 cfs (M)                               | Deep Creek at Shields River Road crossing         | 240                                  | 8                    | no              | 8350              |                        |                 |              |
| 50          | 76M1970      | Park          | 05N 11E 18 DC             | 06 07 77                        | River     | 10 cfs (E)                                 | Shields River above Turkey Creek                  | 64                                   | 8                    | yes             | 8650              |                        |                 |              |
| 51          | 76M1969      | Park          | 05N 11E 18 CCC            | 06 07 77                        | River     | 103.4 cfs (M)                              | Shields River below Crandell Creek                | 91                                   | 7                    | yes             | 8340              |                        |                 |              |



## WHITE SULPHUR SPRINGS

## Chemical Analyses

| Map<br>ref.<br>no. | Location |     |        | Collection<br>date |    |    | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Sicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|----------|-----|--------|--------------------|----|----|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 27                 | 07N      | 08E | 23 AA  | 09                 | 02 | 58 | Well   | 11              | 1                      | 350*           |                       |              |                        |                               | 871                                     | 64                                   | 20               | 76                            |
| 28                 | 07N      | 08E | 23 AA  | 09                 | 02 | 58 | Well   | 10              | 2                      | 320*           |                       |              |                        |                               | 598                                     | 132                                  | 20               |                               |
| 29                 | 07N      | 08E | 23 AA  | 09                 | 10 | 58 | Well   | 670             | 95                     | 130*           |                       |              |                        |                               | 199                                     |                                      | 18               | 2100                          |
| 30                 | 07N      | 08E | 23 AA  | 09                 | 02 | 58 | Well   | 630             | 100                    | 82*            |                       |              |                        |                               | 183                                     |                                      | 20               | 1900                          |
| 32                 | 06N      | 08E | 12 BD  | 11                 | 04 | 75 | Stream | 175             | 226                    | 480            | 15                    |              |                        |                               | 244                                     |                                      | 182              | 1870                          |
| 33                 | 06N      | 07E | 12 CC  | 09                 | 01 | 76 | Stream | 188             | 180                    | 315            | 7                     |              |                        |                               | 610                                     |                                      | 88               | 1230                          |
| 42                 | 06N      | 12E | 09 A   | 10                 | 18 | 75 | Ditch  | 216             | 134                    | 125            | 9.8                   |              |                        |                               | 401                                     |                                      | 30.8             | 980                           |
| 47                 | 11N      | 02W | 27     | 04                 | 23 | 75 | Seep   | 677             | 897                    | 18500          |                       |              |                        |                               | 663                                     | 62                                   | 11000            | 7650                          |
| 49                 | 05N      | 10E | 28 DBA | 06                 | 07 | 77 | Creek  | 13.4            | 1.0                    | 1.4            | .3                    | .02          | <.01                   | 5.7                           | 46                                      |                                      | .5               | 3.6                           |
| 50                 | 06N      | 11E | 16 DC  | 06                 | 07 | 77 | River  | 15.6            | 1.4                    | 1.5            | .5                    | .1           | <.01                   | 5.7                           | 55                                      |                                      | .2               | 3.8                           |
| 51                 | 05N      | 11E | 18 CCC | 06                 | 07 | 77 | River  | 15.9            | 1.2                    | 1.4            | .4                    | .07          | <.01                   | 5.3                           | 51                                      |                                      | .4               | 4                             |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

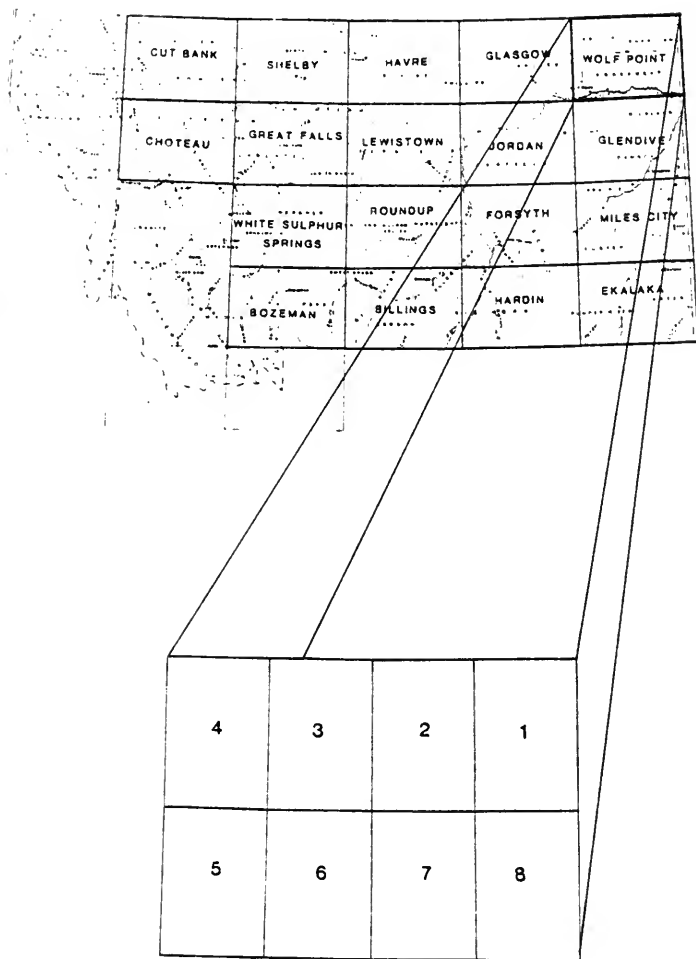
1° x 2° Sheet

## of Selected Waters

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 27                 |                |                 | 8.6       |                      |   |                                | 32  | 690   |                               | Unknown              | 221MRSN                | no              | 58M0004                       |               |
| 28                 |                |                 | 8.4       |                      |   |                                | 33  | 711   |                               | Unknown              | 217LKOT                | no              | 58M0003                       |               |
| 29                 |                |                 | 7.0       |                      |   |                                | 2060                                      | 130   |                               | Unknown              | 331MOSN                | no              | 58M0007                       |               |
| 30                 |                |                 | 7.0       |                      |   |                                | 1980                                      | 150   |                               | Unknown              | 320AMSD                | no              | 58M0006                       |               |
| 32                 | .07            |                 | 7.69      |                      | 4000  | 3192                           | 1370                                      | 200   | 5.8                           | WQB                  |                        |                 | no                            | 75W2257       |
| 33                 | .02            |                 | 8.0       | 22                   | 2874  | 2289                           | 1211                                      | 500   | 3.9                           | WQB                  |                        |                 | no                            | 79W2060       |
| 42                 | .89            |                 | 8.05      | 6                    | 2260  | 1877                           | 1090                                      | 329   | 1.8                           | WQB                  |                        |                 | no                            | 75W2101       |
| 47                 | <.01           |                 | 8.61      | 15                   | 24400                                       | 39440                          | 5380                                      | 639   | 110                           | WQB                  |                        |                 | no                            | 75W0547       |
| 49                 | .059           | <.1             | 7.45      | 5                    | 79  | 48                             | 38  | 37  | .1                            | USFS                 |                        |                 | no                            | 78M1968       |
| 50                 | .113           | <.1             | 7.85      | 9                    | 94  | 56                             | 45  | 45  | .1                            | USFS                 |                        |                 | no                            | 78M1870       |
| 51                 | .045           | <.1             | 7.81      | 7                    | 91  | 64                             | 45  | 42  | .1                            | USFS                 |                        |                 | no                            | 78M1969       |



# LOCATION BASE MAP



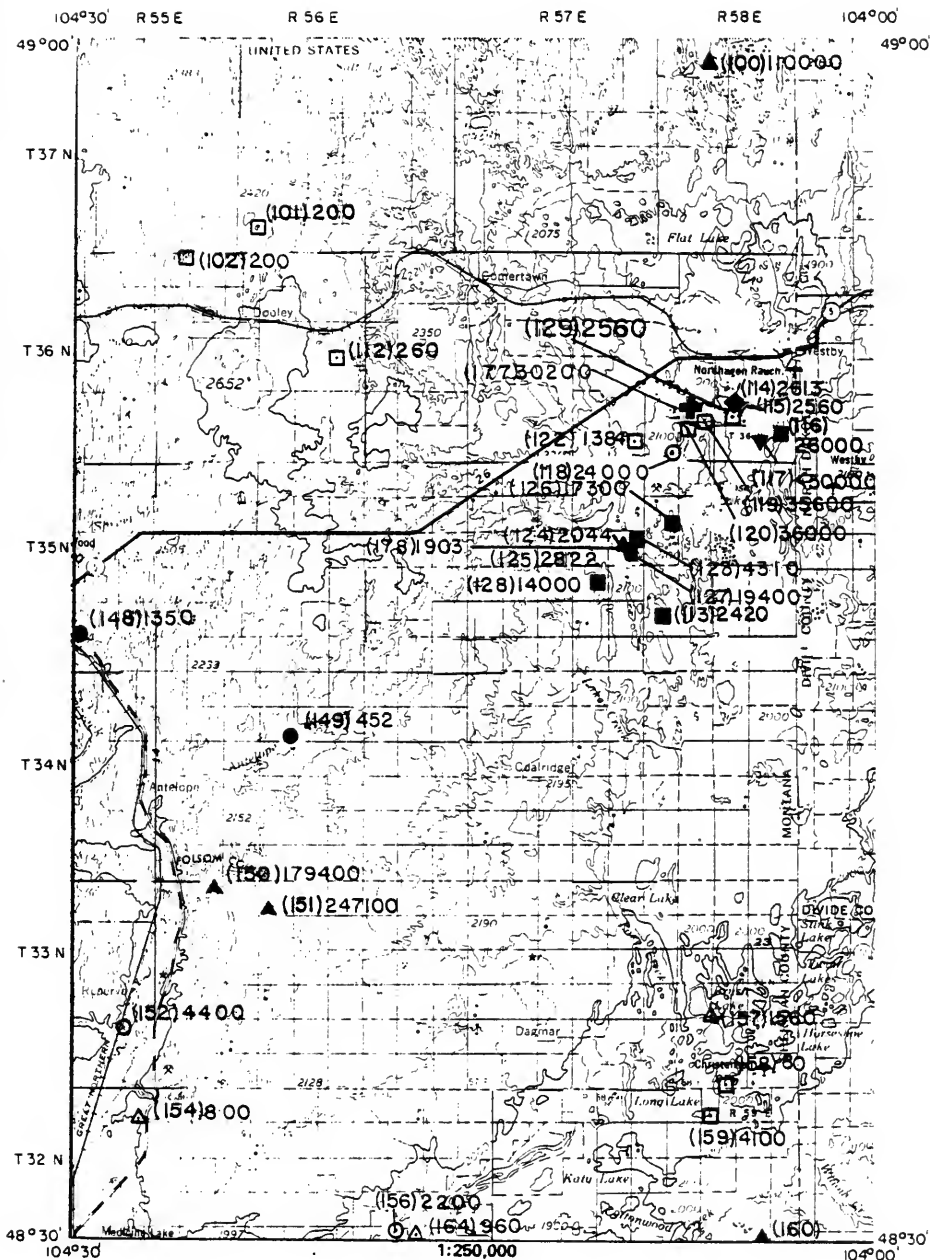
WOLF POINT 1° x 2° SHEET





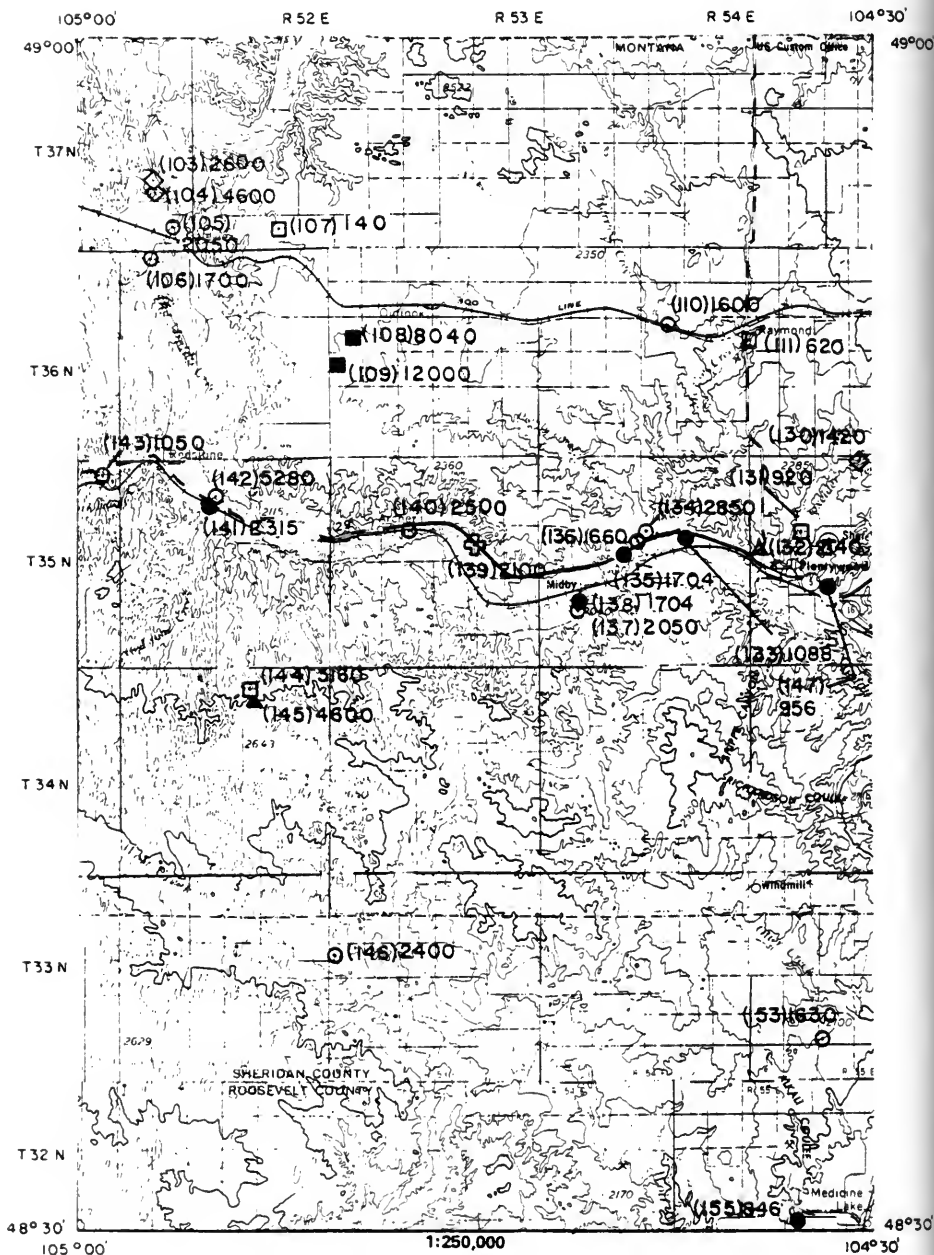
# SPECIFIC CONDUCTANCE SURVEY

WOLF POINT 1



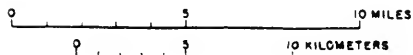
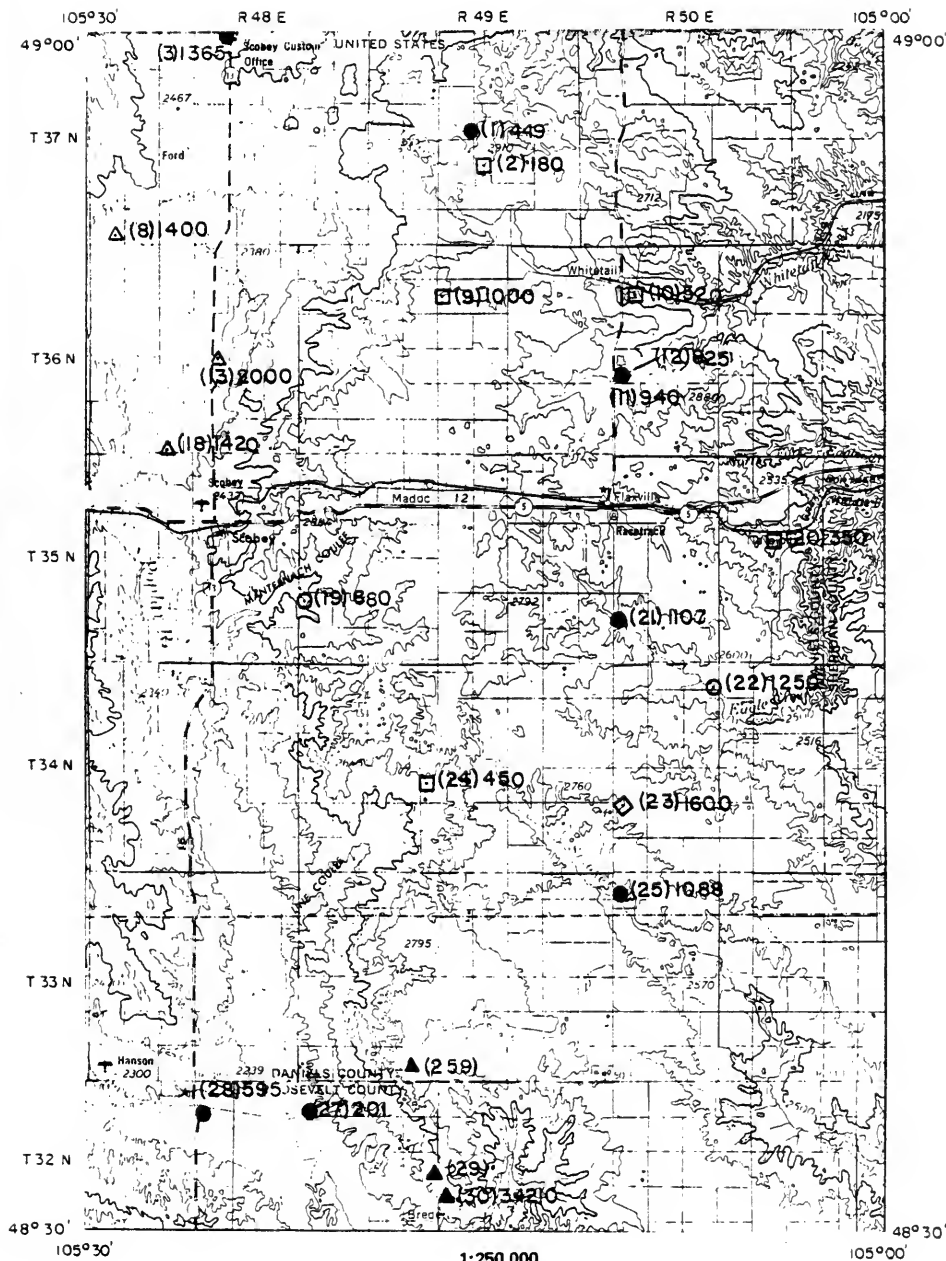
# SPECIFIC CONDUCTANCE SURVEY

WOLF POINT 2



# SPECIFIC CONDUCTANCE SURVEY

WOLF POINT 3



CONTOUR INTERVAL 100 FT

## WOLF POINT 4

106°00'

R 44 E

R 45 E

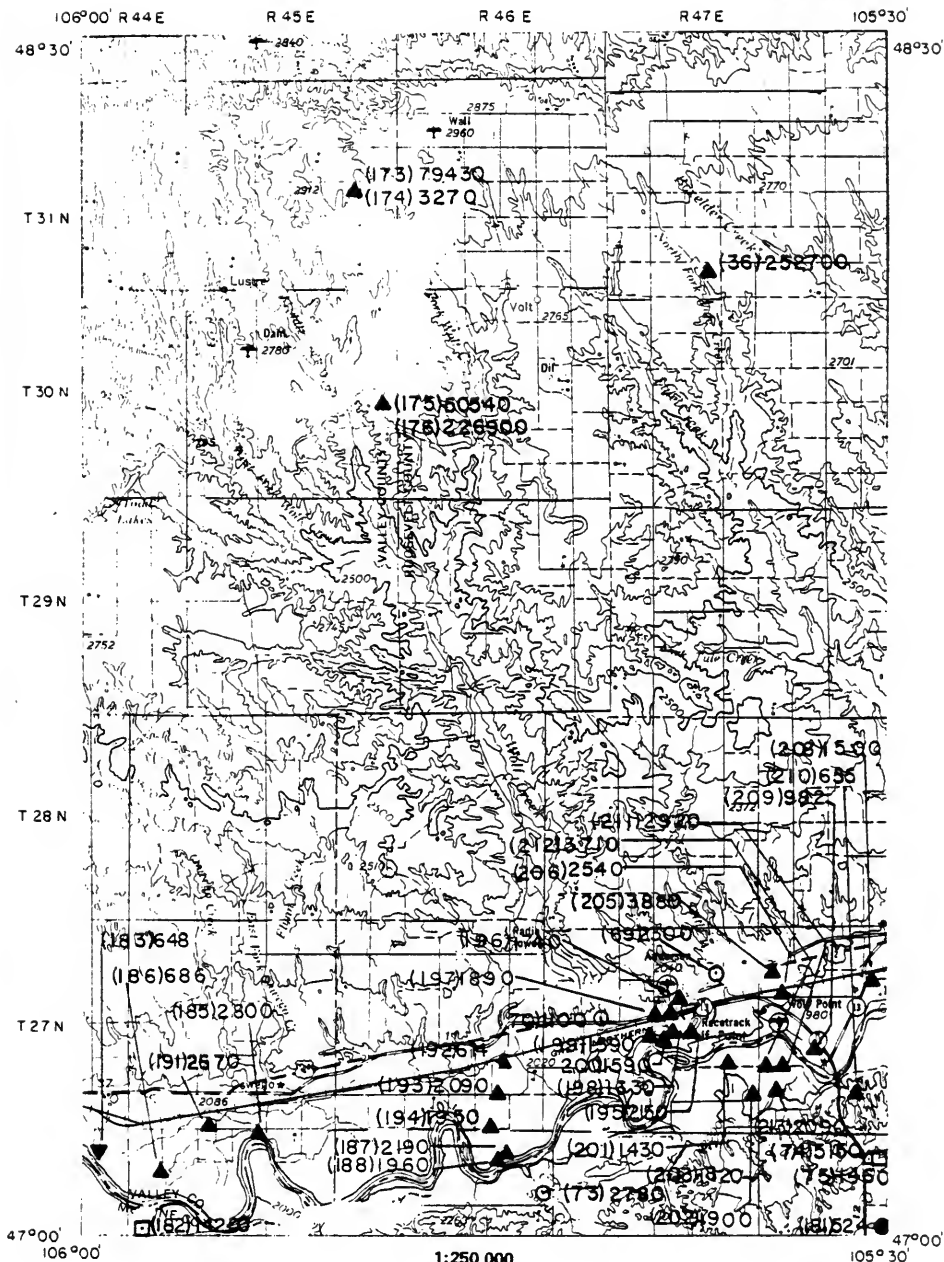
R 46 E

105°30'

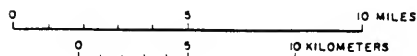


# SPECIFIC CONDUCTANCE SURVEY

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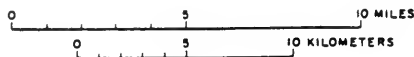
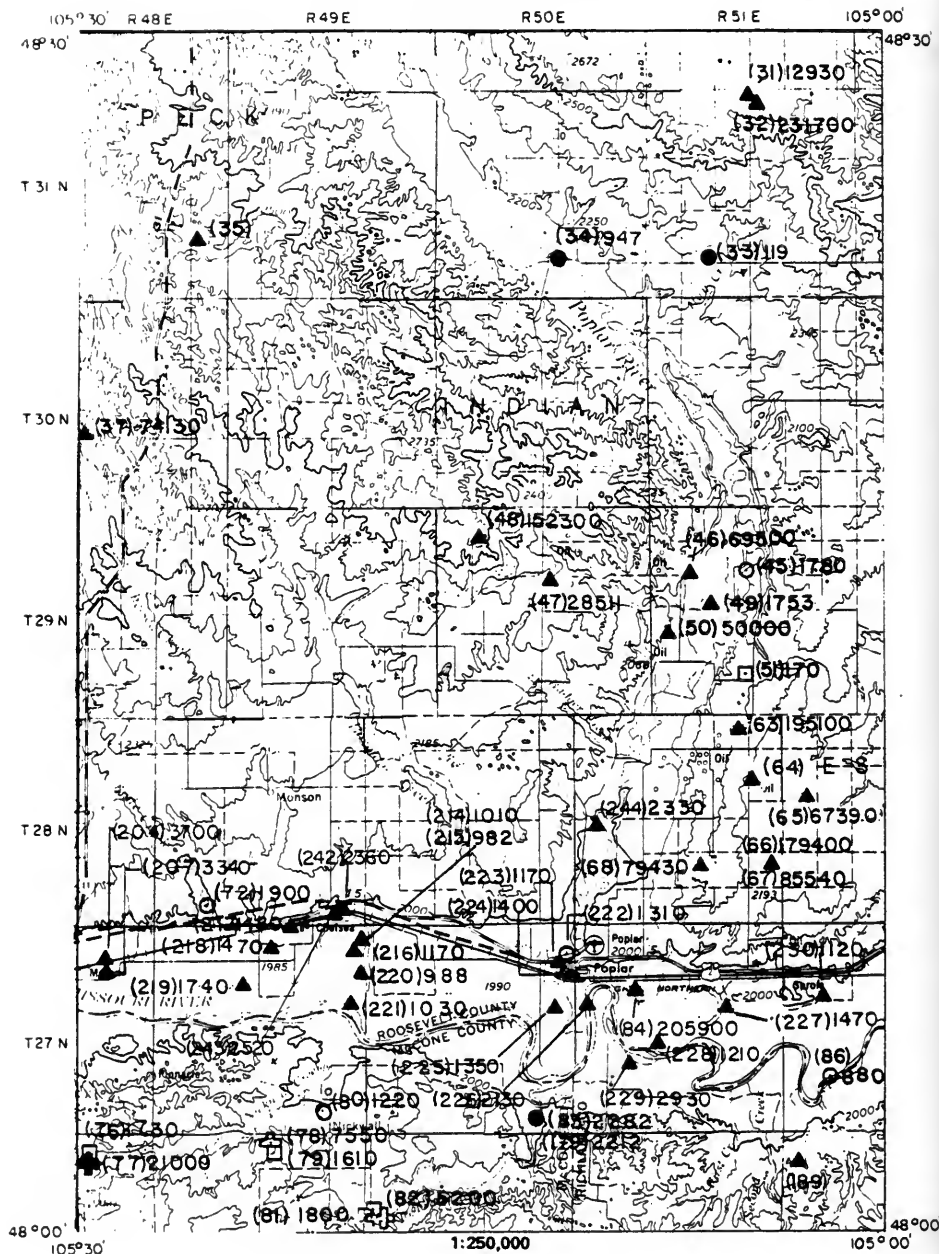
1:250,000



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

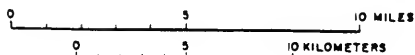
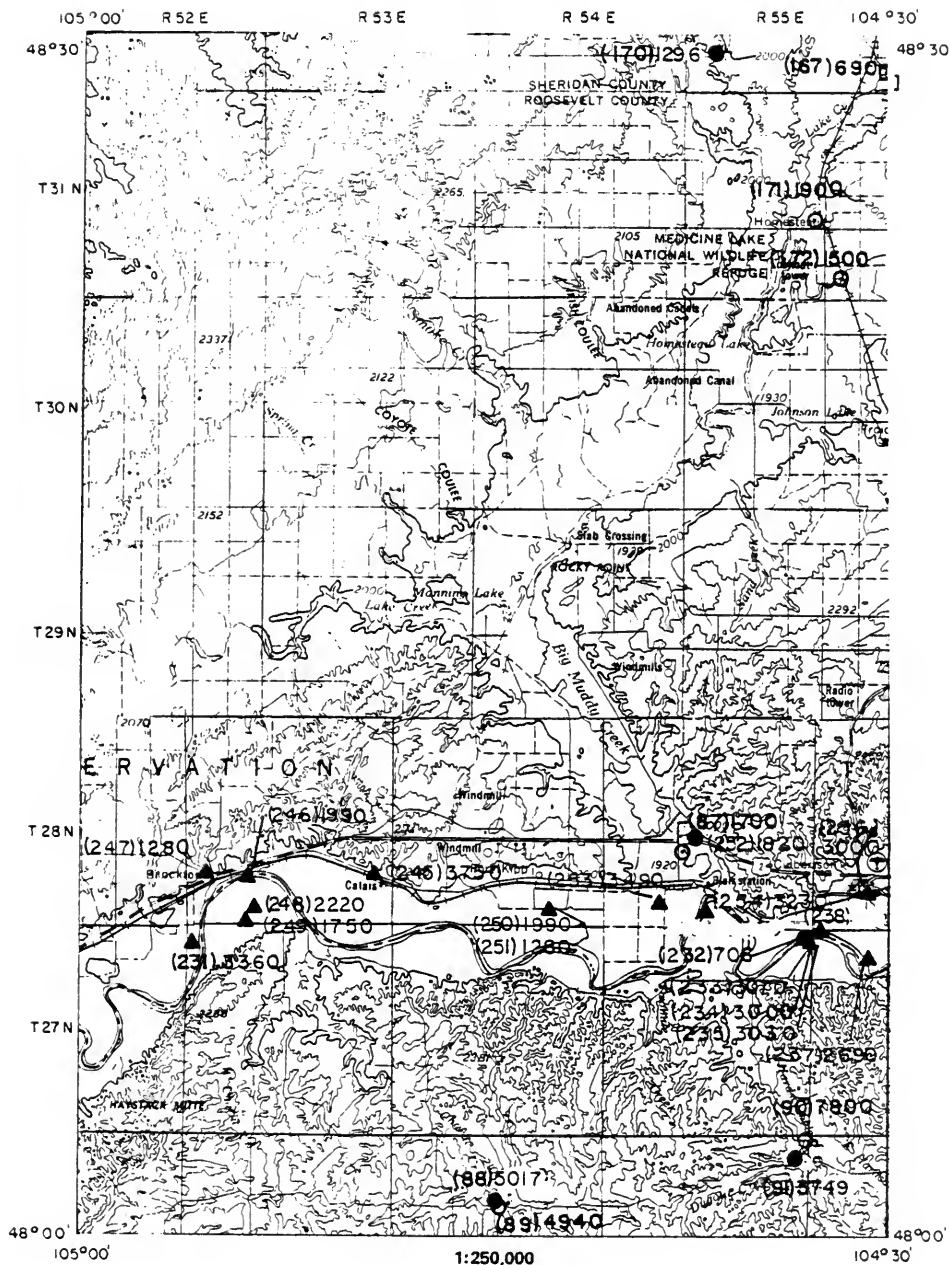
WOLF POINT 6



CONTOUR INTERVAL 100 FT

# SPECIFIC CONDUCTANCE SURVEY

WOLF POINT 7



CONTOUR INTERVAL 100 FT

## WOLF POINT 8





## WOLF POINT 1' x 2' Sheet

## Specific Conductivity Inventory Sheet

| Map<br>ref.<br>no. | Field<br>number | County    | Location<br>T. R. Sec. Tract | Collection<br>date<br>Mo. Day Yr. | Flow or yield<br>E-estimated<br>M-measured | Site description                                 | Specific<br>conductivity<br>at 25 °C | Field<br>temp.<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner         |
|--------------------|-----------------|-----------|------------------------------|-----------------------------------|--|--|--------------------------------------|----------------------|-----------------|-------------------|------------------------|-----------------|---------------|
| 1                  | WOB20           | Danals    | 37N 48E 16 DD                | 06 17 76 Creek                    | 2 gpm (E)                                  | Outlet Creek                                     | 449                                  | yes                  | yes             |                   |                        |                 |               |
| 2                  | WOB21           | Danals    | 37N 48E 22 CC                | 06 17 76 Pond                     | no flow                                    | Pond in field                                    | 180                                  | no                   | yes             |                   |                        |                 |               |
| 3                  | WOB25           | Danals    | 37N 48E 05 AA                | 03 17 76 River                    |  | East Poplar River at Canadian Border             | 1365                                 | 0.5                  | yes             |                   |                        |                 |               |
| 4                  | WOB25           | Danals    | 37N 48E 08 BC                | 08 03 75 Well                     |  | At ranch   | 870                                  | no                   | no              |                   | 125                    |                 | Richardson    |
| 5                  | WOB5002         | Danals    | 37N 48E 32 BB                | 07 10 70 Well                     |  | 10 miles NE of Pezaris                           | 11120                                | yes                  | yes             | 2563              | 211 DRV                |                 |               |
| 6                  | WOB19           | Danals    | 37N 48E 26 B                 | 08 04 75 Pond                     |  | About 2 to 3 acres in size on right hand         | 5300                                 | no                   | no              |                   |                        |                 |               |
| 7                  | WOB3            | Danals    | 37N 48E 25 C                 | 08 03 75 Creek                    |  | Cattle tank                                      | 1400                                 | no                   | no              |                   | 120                    |                 | Danals, Terry |
| 8                  | WOB9            | Danals    | 37N 48E 25 C                 | 06 15 76 Well                     |  | N of Madoc, dryland farming area                 | 1000                                 | no                   | no              |                   |                        |                 |               |
| 9                  | WOB9            | Danals    | 38N 48E 11 B                 | 08 03 75 Pond                     |  | Whistler Res., dryland farming area              | 520                                  | no                   | no              |                   |                        |                 |               |
| 10                 | WOB16           | Danals    | 38N 50E 10                   | 08 04 75 Reservoir                |  | Whistler Res.                                    |                                      |                      |                 |                   |                        |                 |               |
| 11                 | WOB15           | Danals    | 38N 50E 22 C                 | 08 04 75 Creek                    | no flow                                    | Whistler Creek                                   | 940                                  | no                   | no              |                   |                        |                 |               |
| 12                 | WOB19           | Danals    | 38N 50E 22 CC                | 06 17 76 Creek                    | 2 cfs (E)                                  | Whistler Creek S of Whistler                     | 825                                  | yes                  | yes             |                   |                        |                 |               |
| 13                 | WOB8            | Danals    | 38N 48E 22 AC                | 08 03 75 Well                     |  | Domestic well                                    | 2000                                 | no                   | no              |                   |                        |                 |               |
| 14                 | WOB7            | Danals    | 38N 47E 23 C                 | 08 03 75 Reservoir                |  | Fish and Game reservoir                          | 500                                  | no                   | no              |                   |                        |                 |               |
| 15                 | WOB5001         | Danals    | 38N 47E 19 B                 | 07 31 70 Well                     |  | 17 miles NW of Sobey                             | 13720                                | yes                  | yes             | 2552              | 211 DRV                |                 |               |
| 16                 | WOB6            | Danals    | 38N 48E 01                   | 08 03 75 Stream                   | 100 gpm (E)                                | Stream W of Four Buttes                          | 720                                  | no                   | no              |                   |                        |                 |               |
| 17                 | WOB24           | Danals    | 38N 47E 12 ADD               | 06 17 76 Creek                    | 3 cfs (E)                                  | Butte Creek on Danals Co. Highway 248            | 1160                                 | yes                  | yes             |                   |                        |                 |               |
| 18                 | WOB2            | Danals    | 38N 48E 33 C                 | 08 03 75 Well                     |  | South Fork of Matterhorn Coulee                  | 1420                                 | no                   | no              |                   | 125                    |                 | Lund, Anna    |
| 19                 | WOB10           | Danals    | 38N 48E 30 BA B              | 08 03 76 Creek                    |  | Hotfield Reservoir at NE edge of Flaxville Bench | 680                                  | no                   | no              |                   |                        |                 |               |
| 20                 | WOB14           | Danals    | 38N 51E 17                   | 08 04 75 Reservoir                |  |  | 350                                  | no                   | no              |                   |                        |                 |               |
| 21                 | WOB22           | Danals    | 38N 50E 27 CB B              | 06 17 76 Creek                    | 1 cfs (E)                                  | Eagle Creek S of Flaxville                       | 1107                                 | yes                  | yes             |                   |                        |                 |               |
| 22                 | WOB13           | Danals    | 38N 50E 01 D                 | 08 04 76 Creek                    | no flow                                    | Eagle Creek                                      | 1280                                 | no                   | no              |                   |                        |                 |               |
| 23                 | WOB12           | Danals    | 38N 50E 27 CB B              | 08 01 76 Spring                   | 50 gpm (E)                                 | Rocking horse spring (used on Flaxville Bench)   | 1800                                 | no                   | no              |                   |                        |                 |               |
| 24                 | WOB1            | Danals    | 38N 48E 22 C                 | 08 03 75 Reservoir                |  | Domestic well                                    | 460                                  | no                   | no              |                   |                        |                 |               |
| 25                 | WOB23           | Danals    | 38N 50E 03 CB                | 06 17 76 Creek                    | no flow                                    | Snake Creek                                      | 1088                                 | yes                  | yes             |                   |                        |                 |               |
| 26                 | not on map      |           |                              |                                   |  |  |                                      |                      |                 |                   |                        |                 |               |
| 27                 | WOB30           | Roosevelt | 32N 48E 04 CC                | 03 18 76 River                    | 25 cfs (E)                                 | Poplar River above West Fork, S of Sobey         | 201                                  | yes                  | yes             |                   |                        |                 |               |
| 28                 | WOB31           | Roosevelt | 32N 48E 01 CC                | 03 17 76 River                    | 100 cfs (E)                                | Poplar River near Sobey                          | 696                                  | yes                  | yes             | 2423              |                        | 331 CRLS        |               |
| 29                 | 55W0004         | Roosevelt | 32N 48E 13 DA                | 10 22 65 Well                     |  | 1.8 miles NE of Bridette                         | 34210                                | yes                  | yes             | 2410              |                        | 337 MHC         |               |
| 30                 | 53W0002         | Roosevelt | 32N 50E 19 BC                | 08 03 53 Well                     |  | 1.2 miles NE of Bridette                         |                                      |                      |                 |                   |                        |                 |               |

WOLF POINT T<sup>2</sup> x 2<sup>2</sup> Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref<br>no. | Field<br>number | County    | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source    | Flow or yield<br>E - estimated<br>M - measured | Site description                               | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analyses | Altitude<br>feet | Well<br>depth<br>feet | Aquifer<br>code | Owner's name |
|-------------------|-----------------|-----------|---------------------------|---------------------------------|-----------|--|--|--------------------------------------|---------------------|-----------------|------------------|-----------------------|-----------------|--------------|
| 31                | 65M0004         | Roosevelt | 31N 51E 04 AA             | 06 02 67                        | Well      |  | 10 miles SE of Bredette                        | 12930                                | yes                 | yes             | 2650             | 331CRLS               |                 |              |
| 32                | 65M0008         | Roosevelt | 31N 51E 03 BC             | 06 03 65                        | Well      |  | 10.5 miles SE of Bredette                      | 231700                               | yes                 | yes             | 2650             | 331CRLS               |                 |              |
| 33                | 65M0049         | Roosevelt | 31N 51E 28 DCCD           | 03 16 76                        | Creek     | 15 cfs (E)                                     | Lucinda Creek N of Poplar                      | 118                                  | 1                   | yes             |                  |                       |                 |              |
| 34                | W0B28           | Roosevelt | 31N 50E 27 CD             | 03 16 76                        | River     |  | Poplar River N of Poplar                       | 947                                  | 0.1                 | yes             |                  |                       |                 |              |
| 35                | 65M0028         | Roosevelt | 31N 48E 25 BC             | 03 10 66                        | Well      | 2 gpm (E)                                      | 8.8 miles SW of Bredette                       |                                      |                     | yes             | 2670             | 331CRLS               |                 |              |
| 36                | 64M0023         | Roosevelt | 31N 47E 33 AC             | 11 10 64                        | Well      |  | 4.8 miles E of Volt                            | 252700                               |                     | yes             | 2705             |                       |                 |              |
| 37                | 57M0008         | Roosevelt | 30N 48E 20 DD             | 01 30 57                        | Well      |  | 17 miles N of Poplar                           | 74130                                |                     | yes             | 2603             |                       |                 |              |
| 38                | W0B24           | Roosevelt | 30N 50E 07 BB             | 06 16 76                        | Creek     | 10 cfs (E)                                     | Last Creek at Montana highway 16 bridge        | 275                                  |                     | yes             |                  |                       |                 |              |
| 39                | W0B24           | Roosevelt | 30N 57E 14 DD             | 06 16 76                        | Sep       | no flow  | At end of paved road                           | 262                                  |                     | yes             |                  |                       |                 |              |
| 40                | W0B23           | Roosevelt | 30N 58E 14 DCC            | 06 16 76                        | Creek     |  | Sand Creek at bridge                           | 1417                                 |                     | yes             |                  |                       |                 |              |
| 41                | 64M0020         | Roosevelt | 30N 58E 27 BC             | 03 02 64                        | Well      |  | 11 miles SE of Medicine Lake                   | 75646                                |                     | yes             | 2295             |                       |                 |              |
| 42                | 63M0008         | Roosevelt | 30N 57E 35 BB             | 03 23 63                        | Well      |  | 10 miles SE of Medicine Lake                   | 76646                                |                     | yes             | 2285             |                       |                 |              |
| 43                | 63M0012         | Roosevelt | 30N 57E 36 BB             | 04 06 63                        | Well      |  | 10 miles SE of Medicine Lake                   | 241700                               |                     | yes             | 2285             |                       |                 |              |
| 44                | W0B26           | Roosevelt | 30N 58E 30 BB             | 06 16 76                        | Creek     | 3 cfs (E)                                      | Shore Creek at Montana highway 18 bridge       | 1186                                 |                     | yes             |                  |                       |                 |              |
| 45                | W0B8            | Roosevelt | 30N 51E 09 D              | 06 07 75                        | River     |  | Poplar River                                   | 1780                                 | no                  |                 |                  |                       |                 |              |
| 46                | 58M0014         | Roosevelt | 29N 51E 08 CC             | 01 24 58                        | Well      |  | 14.6 miles NE of Poplar                        | 69500                                |                     | yes             | 2100             |                       |                 |              |
| 47                | 58M0013         | Roosevelt | 29N 50E 15 BB             | 01 24 58                        | Well      |  | 12 miles N of Poplar                           | 28511                                |                     | yes             | 2400             |                       |                 |              |
| 48                | 54M0008         | Roosevelt | 29N 50E 05 CC             | 10 08 54                        | Well      |  | 13.5 miles NW of Poplar                        | 15220                                |                     | yes             | 2620             |                       |                 |              |
| 49                | W0B27           | Roosevelt | 29N 51E 17 DD             | 06 07 75                        | Well      |  | Did domestic well                              | 3753                                 |                     | yes             |                  |                       |                 |              |
| 50                | W0B14           | Roosevelt | 29N 51E 19                | 06 07 75                        | Well      | 10 gpm   | Flow down coulee                               | 50000                                |                     | yes             |                  |                       |                 |              |
| 51                | W0B10           | Roosevelt | 29N 51E 26 D              | 06 07 75                        | Reservoir |  | Badger Creek Reservoir, dryland farming area   | 170                                  | no                  |                 |                  |                       |                 |              |
| 52                | not on map      |           |                           |                                 |           |  |  |                                      |                     |                 |                  |                       |                 |              |
| 53                | W0B22           | Roosevelt | 29N 50E 09 BAA            | 06 16 76                        | Pond      |  | 0.5 mile W of North Dakota border              | 190                                  | no                  |                 |                  |                       |                 |              |
| 54                | W0B21           | Roosevelt | 29N 50E 18 DAA            | 06 16 76                        | Pond      |  | Along road at North Dakota border              | 420                                  | no                  |                 |                  |                       |                 |              |
| 55                | W0B21           | Roosevelt | 29N 50E 26 D              | 06 05 75                        | Creek     | 100 gpm (E)                                    | Little Muddy Creek at US highway 2             | 2400                                 | no                  |                 |                  |                       |                 |              |
| 56                | W0B19           | Roosevelt | 28N 58E 26 DCC            | 06 16 76                        | Creek     | 3 cfs (E)                                      | Little Muddy Creek                             | 1380                                 | yes                 |                 |                  |                       |                 |              |
| 57                | W0B20           | Roosevelt | 28N 58E 32 AAC            | 06 16 76                        | Creek     | 1 cfs (E)                                      | Red Bank Creek                                 | 2407                                 | yes                 |                 |                  |                       |                 |              |
| 58                | W0B18           | Roosevelt | 28N 58E 18 BBC            | 06 16 76                        | Creek     | no flow  | By Shogren Reservoir                           | 1150                                 | no                  |                 |                  |                       |                 |              |
| 59                | W0B3            | Roosevelt | 28N 58E 21 D              | 06 05 76                        | Creek     | 0.5 cfs (E)                                    | Shogren Reservoir NW of Banville, sits on bank | 3500                                 | no                  |                 |                  |                       |                 |              |
| 60                | W0B17           | Roosevelt | 28N 58E 20 DDD            | 06 16 76                        | Pond      | no flow  | New railroad crossing                          | 2287                                 | yes                 |                 |                  |                       |                 |              |

WOLF POINT 1' x 2' Sheet (Cont.)

Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Fed<br>no. | County   | Location<br>T R Sec. Twp. | Collection<br>date<br>Mo Day Yr | Flow or<br>E = estimated<br>M = measured | Site description  | Specific<br>conductivity<br>at 25 °C | Frog<br>temp<br>°C | Lab<br>analysis | Altitude<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Auger<br>code | Dweller's name |
|-------------|------------|----------|---------------------------|---------------------------------|--|---|--------------------------------------|--------------------|-----------------|----------------------------|------------------------|---------------|----------------|
| 61          | WOB16      | Roosvelt | 28N 56E 27 ADD            | 06 16 76 Sep                    | 1 g/m                                    | 3 miles E of Culbertson                                     | 963                                  | 17                 | yes             |                            |                        |               |                |
| 62          | WOB44      | Roosvelt | 28N 56E 27                | 08 06 75 Sep                    |  | Lowest point on a six mile area                             | 1287                                 |                    | yes             | 2111                       |                        | 33CRLS        | Bowers, Edjae  |
| 63          | 64W0022    | Roosvelt | 28N 51E 02 CC             | 09 14 64 Well                   |  | 8.4 miles NE of Poplar                                      | 195100                               |                    | yes             | 2110                       |                        | 33WDSN        |                |
| 64          | WOB17      | Roosvelt | 28N 51E 02 CC             | 12 12 64 Well                   |  | 3 miles NW of Poplar  | 67390                                |                    | yes             | 2123                       |                        | 33MSNC        |                |
| 65          | 64W0006    | Roosvelt | 28N 52E 18 AC             | 05 17 52 Well                   | 6 g/m (E)                                | 5.7 miles N of Spoile                                       |                                      |                    |                 |                            |                        |               |                |
| 66          | 67W0002    | Roosvelt | 28N 51E 28 AC             | 01 09 67 Well                   |  | 4.5 miles N of Spoile                                       | 179400                               |                    | yes             | 2168                       |                        | 33CRLS        |                |
| 67          | 67W0003    | Roosvelt | 28N 51E 28 AC             | 01 09 67 Well                   |  | 4.5 miles N of Spoile                                       | 85540                                |                    | yes             | 2168                       |                        | 33KBBY        |                |
| 68          | 66W0012    | Roosvelt | 28N 51E 27 AC             | 01 24 56 Well                   |  | 4.0 miles NW of Spoile                                      | 79430                                |                    | yes             | 2155                       |                        | 33HETH        |                |
| 69          | WOB12      | Roosvelt | 27N 47E 11                | 08 07 75 Creek                  | no flow                                  | West Fork Little Wolf Creek at US highway 2                 | 2300                                 | no                 | no              |                            |                        |               |                |
| 70          | WOB13      | Roosvelt | 27N 47E 17                | 08 07 75 Creek                  | 1 cfs (E)                                | Wolf Creek  | 1100                                 |                    | no              |                            |                        |               |                |
| 71          | 67W0002    | Roosvelt | 27N 47E 15                | Well                            |  | Wolf Point  |                                      |                    | yes             | 1980                       |                        | 21UDHV        |                |
| 72          | WOB11      | Roosvelt | 28N 48E 32                | 08 07 75 Creek                  | no flow                                  | Tule Creek at US highway 2                                  | 1900                                 |                    | no              |                            |                        |               |                |
| 73          | WOB33      | McCone   | 26N 46E 12 D              | 08 31 75 Creek                  | 1 cfs (E)                                | Sand Creek, alkali along sides of creek                     | 2780                                 |                    | no              |                            |                        |               |                |
| 74          | WOB29      | McCone   | 26N 48E 03 CA             | 08 31 75 Well                   | 5 cfs (E)                                | Above large alkali area, water from well had black color    | 5150                                 |                    | no              |                            |                        |               |                |
| 75          | WOB28      | McCone   | 26N 48E 03 DB             | 08 31 75 Pond                   |  | Low area surrounded by dry land farming                     | 1460                                 |                    | no              |                            |                        |               |                |
| 76          | WOB27      | McCone   | 26N 48E 02 CB             | 08 31 75 Pond                   |  | Sleep on two sides  | 1730                                 | no                 | no              |                            |                        |               |                |
| 77          | WOB26      | McCone   | 26N 48E 02 CA             | 08 31 75 Sep                    | 5 g/m (E)                                | Buggy sleep on dry land farming area                        | 21000                                | 17                 | yes             |                            |                        |               |                |
| 78          | WOB24      | McCone   | 26N 48E 03                | 08 31 75 Sep                    |  | Water trucking from bank, moving to slow to sample          | 7650                                 |                    | no              |                            |                        |               |                |
| 79          | WOB23      | McCone   | 26N 48E 03                | 08 31 75 Reservoir              |  | Below dry land farming area                                 | 1610                                 |                    | no              |                            |                        |               |                |
| 80          | WOB25      | McCone   | 27N 48E 35                | 08 31 75 Creek                  |  | Lard Creek  | 1220                                 |                    | no              |                            |                        |               |                |
| 81          | WOB21      | McCone   | 26N 50E 18 BC             | 08 30 75 Reservoir              |  | Small, shallow reservoir at the foot of Redwater fl. bluffs | 1800                                 |                    | no              |                            |                        |               |                |
| 82          | WOB20      | McCone   | 26N 50E 18                | 08 30 75 Sep                    |  | Sleep from bluffs along Redwater River                      | 5200                                 |                    | no              |                            |                        |               |                |
| 83          | WOB22      | McCone   | 27N 50E 35                | 08 30 75 River                  |  | Redwater River at its mouth                                 | 2282                                 | 15                 | yes             |                            |                        | 33CRLS        |                |
| 84          | 65W0047    | Roosvelt | 27N 51E 08 DDD            | 12 27 65 Well                   |  | 2 miles E of Poplar   | 205900                               |                    | yes             |                            |                        |               |                |
| 85          | WOB19      | Richland | 26N 57E 35                | 10 07 75 Stream                 | 0.6 cfs                                  |   | 2400                                 |                    | no              | 1948                       |                        |               |                |
| 86          | WOB 30     | Richland | 27N 52E 20                | 10 09 75 River                  |  | Missouri River at bridge                                    | 880                                  |                    | no              |                            |                        |               |                |
| 87          | WOB29      | Roosvelt | 26N 48E 02 CC             | 08 08 75 Creek                  | 2 cfs (E)                                | Big Muddy Creek at US highway 2 W of Culbertson             | 1700                                 |                    | no              |                            |                        |               |                |
| 88          | WOB28      | Roosvelt | 26N 48E 03                | 08 08 75 Creek                  | 2 cfs (E)                                | Big Muddy Creek at US highway 2 W of Culbertson             | 1700                                 | 23                 | yes             |                            |                        |               |                |
| 89          | WOB29      | Richland | 26N 54E 15                | 10 09 75 Creek                  | no flow                                  | Charlie Creek, longland with some dry land farming          | 4940                                 |                    | no              |                            |                        |               |                |
| 90          | WOB27      | Richland | 26N 55E 01                | 10 09 75 Creek                  | < 1 cfs (E)                              | Hardscrabble Creek  | 7800                                 |                    | no              |                            |                        |               |                |

## WOLF POINT 1' x 2' Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no | Field<br>number | County   | Location<br>T R Sec Tact | Collection<br>Date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description | Specific<br>conductivity<br>at 25 C | Field<br>temp<br>C | Lab<br>analysis<br>C | Altitude<br>ft. | State<br>water<br>div.<br>ref.<br>no. | Aquifer<br>code | Owner + name    |
|------------------|-----------------|----------|--------------------------|---------------------------------|--|------------------|-------------------------------------|--------------------|----------------------|-----------------|---------------------------------------|-----------------|-----------------|
| 81               | W0850           | Richland | 26N 55E 01 D08           | 06 15 76                        | Creek  | 10 cfs (E)       |                                     |                    |                      |                 |                                       |                 |                 |
| 82               | W0818           | Richland | 26N 58E 07 A             | 10 07 75                        | Spring   |                  | 3749                                | 21                 | yes                  |                 |                                       |                 |                 |
| 83               | not on map      |          |                          |                                 |  |                  | 4880                                |                    | no                   |                 |                                       |                 |                 |
| 84               | W0817           | Richland | 26N 59E 07 D             | 10 07 75                        | Creek  | 25 gpm           | 5720                                |                    | no                   |                 |                                       |                 |                 |
| 85               | W086            | Rootwell | 28N 59E 33               | 08 06 75                        | Reservoir                                      |                  | 240                                 |                    | no                   |                 |                                       |                 | Panajuk, G.     |
| 96               | W087            | Rootwell | 28N 59E 32               | 08 06 75                        | Reservoir                                      |                  | 420                                 |                    | no                   |                 |                                       |                 |                 |
| 97               | W081            | Rootwell | 28N 58E 34 B0            | 08 05 75                        | Well   |                  | 3000                                |                    | no                   |                 |                                       |                 |                 |
| 98               | W0815           | Rootwell | 27N 58E 01               | 08 05 75                        | Creek  | 1 cfs            | 2400                                |                    | no                   |                 |                                       |                 |                 |
| 99               | W085            | Rootwell | 27N 58E 08               | 08 08 75                        | Pond   |                  | 2400                                |                    | no                   |                 |                                       |                 |                 |
| 100              | W080030         | Sheridan | 37N 58E 05 CA            | 09 28 66                        | Well   |                  | 110000                              |                    | yes                  | 2200            |                                       | 33W05N          |                 |
| 101              | W0818           | Sheridan | 37N 56E 31 B             | 08 01 75                        | Lake   |                  | 200                                 |                    | no                   |                 |                                       |                 |                 |
| 102              | W0817           | Sheridan | 36N 56E 06 AA            | 08 01 75                        | Pond   |                  | 200                                 |                    | no                   |                 |                                       |                 |                 |
| 103              | W0822           | Sheridan | 37N 51E 26 AA            | 08 01 75                        | Spring   |                  | 2600                                |                    | no                   |                 |                                       |                 |                 |
| 104              | W0823           | Sheridan | 37N 51E 26 A             | 08 01 75                        | Spring   |                  | 4600                                |                    | no                   |                 |                                       |                 |                 |
| 105              | W0824           | Sheridan | 37N 51E 36 A             | 08 01 75                        | Creek  | 1 cfs (E)        | 2050                                |                    | no                   |                 |                                       |                 |                 |
| 106              | W0825           | Sheridan | 36N 52E 06 AD            | 08 01 75                        | Creek  | 1.5 cfs (E)      | 1700                                |                    | no                   |                 |                                       |                 | Leete, Robert   |
| 107              | W0814           | Sheridan | 36N 52E 33 B             | 08 02 75                        | Reservoir                                      |                  | 140                                 |                    | yes                  |                 |                                       |                 |                 |
| 108              | W0832           | Sheridan | 36N 53E 18 B             | 08 02 75                        | Pit  |                  | 12000                               |                    | yes                  |                 |                                       |                 |                 |
| 109              | W0831           | Sheridan | 36N 53E 19 B             | 08 02 75                        | Pit  |                  | 1600                                |                    | no                   |                 |                                       |                 |                 |
| 110              | W0820           | Sheridan | 36N 54E 15 AC            | 08 01 75                        | Stream   | very low         |                                     |                    | no                   |                 |                                       |                 |                 |
| 111              | W0819           | Sheridan | 36N 55E 18               | 08 01 75                        | Reservoir                                      |                  | 620                                 |                    | no                   |                 |                                       |                 |                 |
| 112              | W0816           | Sheridan | 36N 56E 13 CC            | 07 31 75                        | Pond   |                  | 260                                 |                    | no                   |                 |                                       |                 | Kelstein, Kenne |
| 113              | W0812           | Sheridan | 36N 56E 28               | 07 30 75                        | Pit  |                  | 2420                                |                    | yes                  |                 |                                       |                 | Northugen, Jim  |
| 114              | W088            | Sheridan | 36N 58E 26               | 07 30 75                        | Spring   | 100 gpm          | 2813                                |                    | yes                  |                 |                                       |                 |                 |
| 115              | W089            | Sheridan | 36N 58E 26               | 07 30 75                        | Spring   |                  | 2560                                |                    | yes                  |                 |                                       |                 |                 |
| 116              | W087            | Sheridan | 36N 58E 36               | 07 30 75                        | Lake   |                  | 26000                               |                    | yes                  |                 |                                       |                 | Northugen       |
| 117              | W088            | Sheridan | 36N 58E 38               | 07 30 75                        | Trench   |                  | 50000                               |                    | yes                  |                 |                                       |                 | Northugen       |
| 118              | W0849           | Sheridan | 36N 58E 33 O             | 08 03 75                        | Stream   | 25 gpm (E)       | 24000                               |                    | no                   |                 |                                       |                 |                 |
| 119              | W0814           | Sheridan | 36N 58E 27 OA            | 07 31 75                        | Pond   |                  | 35600                               |                    | yes                  |                 |                                       |                 |                 |
| 120              | W0850           | Sheridan | 36N 58E 34 B             | 08 03 75                        | Reservoir                                      |                  | 36000                               |                    | yes                  |                 |                                       |                 |                 |

WOLF POINT 1' x 2' Sheet (Con't.)

Specific Conductivity Inventory Sheet (Con't.)

| Map<br>no. | Field<br>number | County   | Location<br>T. R. Sec | Collection<br>date<br>Mo Day Yr | Flow or<br>E - estimated<br>M - measured | Site description                                      | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Altitude<br>ft. | State<br>water<br>level<br>depth<br>ft. | Aquifer<br>code | Owner name    |
|------------|-----------------|----------|-----------------------|---------------------------------|--|---|--------------------------------------|---------------------|-----------------|---|-----------------|---------------|
| 121        | not on map      |          |                       |                                 |  |   |                                      |                     |                 |   |                 |               |
| 122        | WQB13           | Sheridan | 36N 58E 32            | 07 31 75 Pond                   |  | Below tank battery                                    | 1384                                 | yes                 |                 |   |                 | Helm          |
| 123        | WQB11           | Sheridan | 35N 58E 17            | 07 30 75 Pond                   |  | Natural pond  | 4310                                 | yes                 |                 |   |                 |               |
| 124        | WQB5            | Sheridan | 36N 58E 17            | 07 30 75 Well                   |  | Domestic well   | 2834                                 | yes                 |                 | 80                                      |                 | Nelson, Bill  |
| 125        | WQB4            | Sheridan | 36N 58E 17            | 07 30 75 Well                   |  | Stock well  | 2622                                 | yes                 |                 | 120                                     |                 |               |
| 126        | WQB10           | Sheridan | 36N 58E 09            | 07 30 75 Pond                   |  | Brine pond below tank batteries at state lease        | 17300                                | yes                 |                 |   |                 | Lagerqvist    |
| 127        | WQB3            | Sheridan | 36N 58E 17 CA         | 07 30 75 Pt                     |  | Unlined discharge pit N of house                      | 19400                                | yes                 |                 |   |                 | Nelson, Bill  |
| 128        | WQB2            | Sheridan | 36N 58E 19            | 07 30 75 Pt                     |  | Emergency discharge pit                               | 14000                                | yes                 |                 |   |                 |               |
| 129        | WQB7            | Sheridan | 36N 58E 26            | 07 30 75 Pond                   |  | Well water after it enters a pit                      | 2560                                 | no                  |                 |   |                 |               |
| 130        | WQB15           | Sheridan | 35N 58E 03 B          | 07 31 75 Creek                  | no flow                                  | Box Elder Creek, low rolling country, dryland farming | 1420                                 | no                  |                 |   |                 |               |
| 131        | WQB42           | Sheridan | 36N 55E 17            | 08 02 75 Reservoir              |  | Box Elder Reservoir at Plentywood                     | 920                                  | no                  |                 |   |                 |               |
| 132        | WQB1            | Sheridan | 36N 56E 18 C          | 07 29 75 Well                   |  | At Plentywood Campground below reservoir              | 2100                                 | no                  | shallow         |   |                 |               |
| 133        | WQB57           | Sheridan | 36N 56E 18 C          | 08 01 75 Well                   | 10 cfs (E)                               | At Plentywood Campground below reservoir              | 1888                                 | yes                 |                 |   |                 |               |
| 134        | WQB57           | Sheridan | 36N 56E 15 BR         | 08 01 75 Creek                  | 0.5 cfs (E)                              | McVay Creek   | 2850                                 | no                  |                 |   |                 |               |
| 135        | WQB59           | Sheridan | 35N 54E 16 CDA        | 06 17 76 Creek                  | 10 cfs (E)                               | Plentywood Creek at Sheridan County highway 5 bridge  | 1704                                 | yes                 |                 |   |                 |               |
| 136        | WQB28           | Sheridan | 35N 54E 16 A A        | 08 01 75 Creek                  | 1 cfs (E)                                | Plentywood Creek                                      | 1860                                 | no                  |                 |   |                 |               |
| 137        | WQB27           | Sheridan | 36N 54E 29            | 08 01 75 Creek                  | no flow                                  | Grzy Horse Creek, surrounded by angeland              | 2050                                 | no                  |                 |   |                 |               |
| 138        | WQB59           | Sheridan | 35N 54E 29 BCA        | 06 17 76 Creek                  | 20 cfs (E)                               | Grzy Horse Creek at bridge                            | 1704                                 | yes                 |                 |   |                 |               |
| 139        | WQB60           | Sheridan | 36N 53E 14 B          | 08 17 76 Sep                    |  | Along Sheridan County highway 5 at culvert            | 2100                                 | no                  |                 |   |                 |               |
| 140        | WQB26           | Sheridan | 36N 53E 16            | 08 01 75 Creek                  | 3 cfs (E)                                | Big Muddy Creek at Archer                             | 2300                                 | no                  |                 |   |                 |               |
| 141        | WQB61           | Sheridan | 36N 52E 09 BAO        | 06 17 76 Creek                  | 3 cfs (E)                                | Redstone Creek at Sheridan County highway 5 bridge    | 2315                                 | yes                 |                 |   |                 |               |
| 142        | WQB42           | Sheridan | 36N 52E 09 A          | 08 02 75 Creek                  | no flow                                  | Redstone Creek near Redstone                          | 5280                                 | no                  |                 |   |                 |               |
| 143        | WQB62           | Sheridan | 36N 51E 01 B 08       | 06 17 76 Creek                  | 2 cfs (E)                                | North Fork Big Muddy Creek                            | 1050                                 | no                  |                 |   |                 |               |
| 144        | WQB44           | Sheridan | 34N 52E 03 DA         | 08 03 75 Reservoir              |  | Below Flaville Bench                                  | 3160                                 | no                  |                 |   |                 |               |
| 145        | WQB45           | Sheridan | 34N 52E 03 DD         | 08 03 75 Well                   |  | Stock tank  | 4600                                 | yes                 |                 | 14                                      |                 | Garner, Cecil |
| 146        | WQB46           | Sheridan | 33N 53E 18 BC         | 08 03 75 Creek                  | 0.5 cfs (E)                              | Wolf Creek, area surrounded by dryland farming        | 2400                                 | no                  |                 |   |                 |               |
| 147        | WQB56           | Sheridan | 36N 56E 21 CDD        | 06 16 76 Creek                  | 1 cfs (E)                                | Marion Creek at Montana highway 16 bridge             | 1560                                 | yes                 |                 |   |                 |               |
| 148        | WQB55           | Sheridan | 36N 55E 27 ODD        | 06 16 76 Creek                  | no flow                                  | Marion Creek at Montana highway 16 bridge             | 1350                                 | yes                 |                 |   |                 |               |
| 149        | WQB56           | Sheridan | 36N 55E 27 ODD        | 06 16 76 Creek                  | no flow                                  | Marion Creek at Montana highway 16 bridge             | 462                                  | yes                 |                 |   |                 |               |
| 150        | WQB611          | Sheridan | 33N 56E 05 AB         | 08 30 57 Well                   |  | Antelope Creek at culvert<br>3.8 miles SE of Antelope | 179400                               | yes                 | 2229            |   | 337MSNC         |               |

## WOLF POINT 1 x 2 Sheet (Cont.)

## Specific Conductivity Inventory Sheet (Cont.)

| Map<br>ref. | Field<br>no. | County   | Location<br>T R Sec | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                                    | Specific<br>conductivity<br>at 25 C | Find<br>C | Lap<br>analysis | Altitude<br>(ft.) | Static<br>water<br>depth<br>(ft.) | Well<br>depth<br>(ft.) | Owner name |
|-------------|--------------|----------|---------------------|---------------------------------|--|---|-------------------------------------|-----------|-----------------|-------------------|-----------------------------------|------------------------|------------|
| 151         | 64W0274      | Sheridan | 32N 55E 03 CC       | 09 14 84 Well                   | 4.8 gpm (E)                                    | 4.8 miles SE of Anatone                             | 247100                              | yes       | yes             | 7270              |                                   | 331MDSN                |            |
| 152         | W0B34        | Sheridan | 32N 55E 26 8B       | 08 02 75 Creek                  | 5 gpm (E)                                      | Old Creek bank lined with salt                      | 4400                                | no        | no              |                   |                                   |                        |            |
| 153         | W0B33        | Sheridan | 32N 55E 26 CC       | 08 02 75 Creek                  | 2 cfs (E)                                      | Big Muddy Creek, flood plain has many alkali spots  | 1630                                | no        | no              |                   |                                   |                        |            |
| 154         | W0B41        | Sheridan | 32N 55E 05 D        | 08 02 75 Well                   |  | Well used by local residents who have to haul water | 800                                 | no        | no              |                   |                                   |                        |            |
| 155         | W0B52        | Sheridan | 32N 55E 27 BAA      | 08 16 76 Creek                  | 30 cfs (E)                                     | Big Muddy Creek at road                             | 846                                 | yes       | yes             |                   |                                   |                        |            |
| 156         | W0B35        | Sheridan | 32N 57E 27 8B       | 08 02 75 Creek                  | no flow  | Lake Creek before it enters Medicine Lake           | 2200                                | no        | no              |                   |                                   |                        |            |
| 157         | W0B30        | Sheridan | 32N 58E 27 D        | 08 02 75 Well                   |  | At Brush Lake Campground                            | 1560                                | no        | no              |                   |                                   | shallow                |            |
| 158         | W0B36        | Sheridan | 32N 58E 35 CC       | 08 02 75 Pond                   |  | Natural pond, dryland farming to its edge           | 80                                  | no        | no              |                   |                                   |                        |            |
| 159         | W0B35        | Sheridan | 32N 58E 08 CD       | 08 01 75 Pond                   |  | Neave and adjacent to alkali flat, much sump nearby | 4100                                | no        | no              |                   |                                   |                        |            |
| 160         | 64W0311      | Sheridan | 32N 55E 29 A        | 10 26 60 Well                   | 3 gpm (E)                                      | 0.3 miles SE of Daguerre                            |                                     | yes       | yes             | 2070              |                                   | 337MSNC                |            |
| 161         | 64W0004      | Sheridan | 32N 55E 32 CD       | 03 20 68 Well                   |  | 10 miles E of Medicine Lake                         | 2366                                | yes       | yes             | 2145              |                                   | 217MDDY                |            |
| 162         | W0B36        | Sheridan | 32N 55E 27 C        | 08 02 75 Creek                  | < 1 cfs (E)                                    | Lake Creek  | 2400                                | no        | no              |                   |                                   |                        |            |
| 163         | W0B37        | Sheridan | 32N 55E 35 C        | 08 02 75 Pond                   |  | Natural pond, dryland farming to its edge           | 48000                               | no        | no              |                   |                                   | shallow                |            |
| 164         | W0B40        | Sheridan | 32N 57E 27 A        | 08 01 75 Well                   |  | In marshy bottom near wildlife refuge               | 960                                 | yes       | yes             |                   |                                   |                        |            |
| 165         | W0B65        | Sheridan | 32N 57E 30          | 04 09 78 Lake                   |  | Medicine Lake                                       | 748                                 | yes       | yes             |                   |                                   |                        |            |
| 166         | W0B66        | Sheridan | 32N 57E 31 A        | 05 06 78 Lake                   |  | Medicine Lake                                       | 1012                                | yes       | yes             |                   |                                   |                        |            |
| 167         | W0B63        | Sheridan | 32N 55E 36 CC       | 04 09 76 Lake                   |  | Medicine Lake                                       | 1080                                | yes       | yes             |                   |                                   |                        |            |
| 168         | W0B64        | Sheridan | 32N 55E 31 CC       | 08 16 76 Lake                   |  | Medicine Lake at W end                              | 587                                 | yes       | yes             |                   |                                   |                        |            |
| 170         | W0B53        | Sheridan | 32N 55E 30 DDD      | 06 16 76 Creek                  | 15 cfs (E)                                     | Wolf Creek at bridge                                | 1296                                | yes       | yes             |                   |                                   |                        |            |
| 171         | W0B47        | Sheridan | 31N 55E 27 DD       | 08 03 75 Creek                  | 2 cfs (E)                                      | Big Muddy Creek at Homestead Lake                   | 1900                                | no        | no              |                   |                                   |                        |            |
| 172         | W0B48        | Sheridan | 31N 55E 35          | 08 03 75 Creek                  |  | Lust Creek as it enters Homestead Lake              | 1500                                | no        | no              |                   |                                   |                        |            |
| 173         | 57M0010      | Valley   | 31N 45E 23 AA       | 01 31 57 Well                   |  | 4.8 miles NE of Lustre                              | 79430                               | yes       | yes             | 2890              |                                   | 337MSNC                |            |
| 174         | 57M0009      | Valley   | 31N 45E 23 AA       | 01 31 57 Well                   |  | 5.0 miles NE of Lustre                              | 22700                               | yes       | yes             | 2890              |                                   | 337MSNC                |            |
| 175         | 56M0005      | Valley   | 30N 45E 24 AD       | 02 02 56 Well                   |  | 9 miles SE of Lodi Lake                             | 50540                               | yes       | yes             | 2745              |                                   | 224PRA                 |            |
| 178         | 56M0016      | Valley   | 30N 45E 24 AD       | 03 16 56 Well                   |  | 10 miles SE of Lustre                               | 226900                              | yes       | yes             | 2745              |                                   | 331CRLS                |            |
| 177         | W0B8A        | Sheridan | 36N 58E 27          | 07 30 75 Sep                    |  | Course below Brigham lease                          | 30200                               | yes       | yes             | 2150              |                                   | 1251GRV                | Nelson     |
| 178         | 76M1648      | Sheridan | 36N 58E 17 ADO      | 03 07 77 Well                   |  | Nelson farm 7 miles SW of Westly                    | 1803                                | yes       | yes             |                   |                                   |                        |            |
| 179         | EPA RW1      | McCone   | 27N 50E 35          | 07 27 78 River                  |  | Redwater River                                      | 2212                                | 20        | no              |                   |                                   |                        |            |
| 180         | W0B4         | Dawson   | 37N 46E 36 B        | 08 03 76 Creek                  | < 1 cfs  | Coal Creek area surrounded by dryland farming       | 580                                 | no        | no              |                   |                                   |                        |            |

WOLF POINT 1' x 2' Sheet (Con't.)

Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no. | County    | Location<br>T H Sec Tran | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E=estimated<br>M=measured | Site description | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>ft. | Static<br>water<br>level<br>ft. | Well<br>depth<br>ft. | Aquifer<br>code | Over-sight |
|-------------|--------------|-----------|--------------------------|---------------------------------|--|------------------|--------------------------------------|---------------------|-----------------|-----------------|---------------------------------|----------------------|-----------------|------------|
| 181         | W0846        | McCone    | 26N 4E 15 CB             | 03 15 76                        | Crack                                      | 1.1 cfs (M)      | 524                                  | yes                 | yes             |                 |                                 |                      |                 |            |
| 182         | W0834        | McCone    | 26N 4E 19                | 08 31 75                        | Pond                                       | 100 cfs (E)      | 14200                                | no                  | no              | 2050            |                                 | 18                   | 110ALVM         |            |
| 183         | G3M0025      | McCone    | 26N 4E 01 CB             | 09 06 63                        | Canal                                      |                  | 648                                  | 17.2                | yes             | 2009            |                                 | 18                   | 110ALVM         |            |
| 184         | G3M0056      | McCone    | 26N 4E 10 BCC            | 09 05 63                        | Well                                       |                  | 1150                                 | yes                 | yes             | 2010            |                                 | 48                   | 110ALVM         |            |
| 185         | G3M0057      | McCone    | 26N 4E 03 AAA            | 09 06 63                        | Well                                       |                  | 2800                                 | 16.1                | yes             | 2010            |                                 |                      |                 |            |
| 186         | G3M0058      | McCone    | 26N 4E 07 ADA            | 09 09 63                        | Well                                       |                  | 686                                  | 13.3                | yes             | 2005            |                                 | 63                   | 110ALVM         |            |
| 187         | G3M0053      | McCone    | 26N 4E 02 DBB            | 11 06 63                        | Well                                       |                  | 2190                                 | yes                 | yes             | 1995            |                                 | 106                  | 110ALVM         |            |
| 188         | G3M0026      | McCone    | 26N 4E 02 DCD            | 10 22 64                        | Well                                       |                  | 1960                                 | 10.6                | yes             | 2250            |                                 | 106                  | 110ALVM         |            |
| 189         | G4M0041      | McCone    | 26N 4E 06 DBA            | 07 26 64                        | Well                                       |                  | 2104                                 | yes                 | yes             | 2104            |                                 | 33                   | 110ALVM         |            |
| 190         | G4M0054      | McCone    | 26N 4E 01 BAC            | 04 15 64                        | Well                                       |                  | 3610                                 | 8.9                 | yes             | 1940            |                                 | 90                   | 110ALVM         |            |
| 191         | 47M0057      | Valley    | 27N 4E 33 CDD            | 10 09 47                        | Well                                       |                  | 2670                                 | 7.8                 | yes             | 2010            |                                 | 21                   | 110ALVM         |            |
| 192         | G3M0060      | Roosevelt | 27N 4E 26 ABA            | 11 17 63                        | Well                                       |                  | 614                                  | 8.3                 | yes             | 2000            |                                 | 42                   | 110ALVM         |            |
| 193         | G3M0061      | Roosevelt | 27N 4E 26 DDC            | 10 08 63                        | Well                                       |                  | 2040                                 | yes                 | yes             | 1995            |                                 | 80                   | 110ALVM         |            |
| 194         | G3M0062      | Roosevelt | 27N 4E 35 DCD            | 10 22 63                        | Well                                       |                  | 1950                                 | 9.5                 | yes             | 1995            |                                 | 73                   | 110ALVM         |            |
| 195         | G3M0062      | Roosevelt | 27N 4E 14 CC             | 10 18 63                        | Well                                       |                  | 2150                                 | yes                 | yes             | 1980            |                                 | 106                  | 110ALVM         |            |
| 196         | 47M0054      | Roosevelt | 27N 4E 15 AC             | 10 10 77                        | Well                                       |                  | 1740                                 | 8.9                 | yes             | 1985            |                                 | 93                   | 110ALVM         |            |
| 197         | 47M0054      | Roosevelt | 27N 4E 15 AC             | 10 10 77                        | Well                                       |                  | 1830                                 | 10.6                | yes             | 1985            |                                 | 100                  | 110ALVM         |            |
| 198         | G4M0045      | Roosevelt | 27N 4E 15 DCC            | 10 16 64                        | Well                                       |                  | 1630                                 | 7.8                 | yes             | 1985            |                                 | 100                  | 110ALVM         |            |
| 199         | G4M0046      | Roosevelt | 27N 4E 21 AAD            | 10 16 64                        | Well                                       |                  | 1590                                 | 7.8                 | yes             | 1980            |                                 | 100                  | 110ALVM         |            |
| 200         | G4M0047      | Roosevelt | 27N 4E 22 BBD            | 10 16 64                        | Well                                       |                  | 1590                                 | 8.3                 | yes             | 1980            |                                 | 94                   | 110ALVM         |            |
| 201         | G4M0039      | Roosevelt | 27N 4E 24 CCC            | 07 23 64                        | Well                                       |                  | 1430                                 | 8.5                 | yes             | 1986            |                                 | 54                   | 110ALVM         |            |
| 202         | G3M0043      | Roosevelt | 27N 4E 25 DD             | 09 05 63                        | Well                                       |                  | 1900                                 | 16.1                | yes             | 1888            |                                 | 20                   | 110ALVM         |            |
| 203         | 47M0051      | Roosevelt | 27N 4E 25 DD             | 10 10 47                        | Well                                       |                  | 1820                                 | 8.3                 | yes             | 1988            |                                 | 20                   | 110ALVM         |            |
| 204         | G4M0053      | McCone    | 27N 4E 02 DCA            | 10 15 64                        | Well                                       |                  | 3700                                 | 7.2                 | yes             | 2000            | 21.2                            | 51                   | 110ALVM         |            |
| 205         | G3M0044      | McCone    | 27N 4E 07 BDB            | 09 07 63                        | Well                                       |                  | 3860                                 | 7.8                 | yes             | 1991            |                                 | 48                   | 110ALVM         |            |
| 206         | G3M0055      | McCone    | 27N 4E 07 DCD            | 09 07 63                        | Well                                       | 500 gpm (E)      | 2540                                 | 7.2                 | yes             | 1980            | 19.8                            | 68                   | 110ALVM         |            |
| 207         | G4M0052      | McCone    | 27N 4E 11 ACB            | 09 07 64                        | Well                                       | 680 gpm (E)      | 3340                                 | 7.2                 | yes             | 2000            | 20.0                            | 52                   | 110ALVM         |            |
| 208         | 47M0052      | McCone    | 27N 4E 10 CB             | 10 10 47                        | Well                                       |                  | 1500                                 | 7.8                 | yes             | 1980            |                                 | 36                   | 110ALVM         |            |
| 209         | G3M0054      | McCone    | 27N 4E 20 DBA            | 09 06 63                        | Well                                       | 1000 gpm (E)     | 982                                  | 7.8                 | yes             | 1980            | 11.6                            | 68                   | 110ALVM         |            |
| 210         | G3M0036      | Roosevelt | 27N 4E 28 D              | 09 06 63                        | Canal                                      | 80 cfs (E)       | 655                                  | 20.6                | yes             | 2000            |                                 |                      |                 |            |

WOLF POINT 1' x 2' Sheet (Con't.)  
Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref<br>no. | Field<br>no. | County    | Location<br>T. R. Sec. Twp. | Collection<br>date<br>Mo. Day Yr. | Flow or yield<br>Estimated<br>E or M<br>M <sup>3</sup> measured | Site description                                | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>(ft.) | Static<br>water<br>level<br>(ft.) | Well<br>depth<br>(ft.) | Aquifer<br>code | Owner's name |
|-------------------|--------------|-----------|-----------------------------|-----------------------------------|---|---|--------------------------------------|---------------------|-----------------|-------------------|-----------------------------------|------------------------|-----------------|--------------|
|                   |              |           |                             |                                   |   | 1.6 miles S of Wolf Point International Airport | 2920                                 | 8.9                 | yes             | 1980              | 16.5                              | 60                     | 110ALVM         |              |
| 210               | 64N0050      | McCone    | 27N 48E 30 ABA              | 07 23 64 Well                     | 450 gpm (E)   | 1 mile N Pleasant Valley Community Hall         | 2090                                 | 8.3                 | yes             | 1980              | 23.8                              | 64                     | 110ALVM         |              |
| 212               | 64N0048      | McCone    | 27N 48E 30 CBA              | 08 29 64 Well                     | 1100 gpm (E)  | 0.2 mile N Pleasant Valley Community Hall       | 1010                                 | 8.9                 | yes             | 1960              |                                   | 97                     | 110ALVM         |              |
| 214               | 63N0048      | Roosevelt | 27N 48E 01 ADA              | 10 03 63 Well                     |   | 4 miles N of Nickwell                           | 982                                  | 8.3                 | yes             | 1960              |                                   | 97                     | 110ALVM         |              |
| 215               | 63N0046      | Roosevelt | 27N 48E 01 ADA              | 10 03 63 Well                     |   | 4 miles N of Nickwell                           | 1170                                 | 8.3                 | yes             | 1960              |                                   | 85                     | 110ALVM         |              |
| 218               | 63N0047      | Roosevelt | 27N 48E 01 DAD              | 10 03 63 Well                     |   | 4 miles N of Nickwell                           | 1480                                 | 7.8                 | yes             | 1985              | 29.0                              | 106                    | 110ALVM         |              |
| 219               | 63N0048      | Roosevelt | 27N 48E 03 AAB              | 09 02 64 Well                     | 870 gpm (M)   | 8 miles NW of Nickwell                          | 1470                                 | 8.3                 | yes             | 1975              |                                   | 60                     | 110ALVM         |              |
| 218               | 63N0043      | Roosevelt | 27N 48E 03 CAA              | 10 14 47 Well                     |   | 8.5 miles NW of Nickwell                        | 1740                                 |                     | yes             | 1970              |                                   | 90                     | 110ALVM         |              |
| 219               | 63N0048      | Roosevelt | 27N 48E 09 DBC              | 09 07 63 Well                     |   | 5 miles NW of Nickwell                          | 988                                  | 8.3                 | yes             | 1965              |                                   | 98                     | 110ALVM         |              |
| 220               | 63N0049      | Roosevelt | 27N 48E 12 ADD              | 10 31 63 Well                     |   |   |                                      |                     |                 |                   |                                   |                        |                 |              |
| 221               | 63N0050      | Roosevelt | 27N 48E 13 AAC              | 11 05 63 Well                     |   | 4 miles NW of Nickwell                          | 1020                                 | 8.9                 | yes             | 1965              |                                   | 86                     | 110ALVM         |              |
| 222               | 63N0037      | Roosevelt | 27N 50E 01 D                | 09 07 63 Stream                   | 5 cfs (E)   | Poplar River near Poplar                        | 1310                                 | 22.8                | yes             | 2000              |                                   | 99                     |                 |              |
| 223               | 64N0042      | Roosevelt | 27N 50E 12 A8               | 10 15 64 Well                     |   | Poplar  | 1170                                 | 10.6                | yes             | 1960              |                                   | 96                     | 110ALVM         |              |
| 224               | 64N0041      | Roosevelt | 27N 50E 12 ADD              | 10 15 64 Well                     |   | Poplar  | 1360                                 | 13.9                | yes             | 1955              |                                   | 65                     | 110ALVM         |              |
| 225               | 63N0051      | Roosevelt | 27N 50E 13 BDD              | 09 07 63 Well                     |   | 1 mile S of Poplar                              |                                      |                     |                 |                   |                                   |                        |                 |              |
| 226               | 64N0044      | Roosevelt | 27N 51E 18 BCC              | 10 07 64 Well                     |   | 1.5 miles S of Poplar                           | 2130                                 | 8.9                 | yes             | 1952              |                                   | 73                     | 110ALVM         |              |
| 227               | 64N0043      | Roosevelt | 27N 51E 14 BDC              | 10 07 64 Well                     |   | 5 miles SE of Poplar                            | 1470                                 | 8.8                 | yes             | 1950              |                                   | 30                     | 110ALVM         |              |
| 228               | 64N0040      | Roosevelt | 27N 51E 21 BBA              | 10 07 64 Well                     |   | 3 miles SE of Poplar                            | 1210                                 | 12.2                | yes             | 1951              |                                   | 20                     | 110ALVM         |              |
| 229               | 63N0038      | Roosevelt | 27N 51E 29 ABB              | 09 07 63 Well                     |   | 0.5 mile S of Poplar                            | 2930                                 | 13.8                | yes             | 2000              |                                   | 77                     | 110ALVM         |              |
| 230               | 63N0041      | Roosevelt | 27N 52E 17 BB               | 09 09 63 Well                     |   | 7 miles NW of Haystack Butte                    | 1120                                 | 11.7                | yes             | 1980              |                                   | 75                     | 110ALVM         |              |
| 231               | 64N0035      | Richland  | 27N 53E 06 BCD              | 10 08 64 Well                     |   | 1.5 miles S of Brockton                         | 3280                                 | 8.8                 | yes             | 1934              |                                   |                        | 110ALVM         |              |
| 232               | 64N0033      | Richland  | 27N 55E 01 AA               | 05 12 64 Stream                   |   | Missouri River 6 miles E of Poplar              | 2000                                 | 8.8                 | yes             | 1900              |                                   | 109                    | 110ALVM         |              |
| 233               | 64N0036      | Richland  | 27N 55E 01 AAD              | 04 30 64 Well                     |   | 3 miles S of Colburn                            | 2000                                 | 9.6                 | yes             | 1900              |                                   | 36                     | 110ALVM         |              |
| 234               | 64N0037      | Richland  | 27N 55E 01 ABE              | 05 12 64 Well                     |   | 3.2 miles S of Colburn                          | 3030                                 | 9.5                 | yes             | 1900              |                                   | 126                    | 110ALVM         |              |
| 235               | 64N0028      | Richland  | 27N 55E 01 AAD              | 05 14 64 Well                     | 700 gpm (M)   |   |                                      |                     |                 |                   |                                   |                        |                 |              |
| 236               | 64N0036      | Richland  | 27N 56E 03 CAB              | 05 05 64 Well                     |   | 3.6 miles S of Colburn                          | 3060                                 | 8.3                 | yes             | 1911              |                                   | 90                     | 110ALVM         |              |
| 237               | 63M0042      | Richland  | 27N 56E 05 CDA              | 11 14 83 Well                     |   | 7 miles W of Colburn                            | 2690                                 | 8.3                 | yes             | 1900              |                                   | 157                    | 110ALVM         |              |
| 238               | 62M0017      | Richland  | 27N 56E 06 BBA              | 10 03 62 Well                     |   | S of Colburn                                    | 995                                  |                     | yes             | 2000              |                                   | 115                    | 110ALVM         |              |
| 239               | 63M0040      | Roosevelt | 27N 58E 35 AAB              | 09 20 63 Well                     |   | 21 miles N of Fairview                          | 1210                                 |                     | yes             | 1890              |                                   | 86                     | 110ALVM         |              |
| 240               | 63M0027      | Roosevelt | 27N 58E 36 BCD              | 09 23 63 Well                     |   | 4 miles SE of Colburn                           |                                      |                     | yes             | 2200              |                                   | 80                     | 110ALVM         |              |



## WOLF POINT 1" x 2" Sheet (Con't.)

## Specific Conductivity Inventory Sheet (Con't.)

| Map<br>ref. | Field<br>no. | County   | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Flow or yield<br>E = estimated<br>M = measured | Site description                         | Specific<br>conductivity<br>at 25 °C | Field<br>temp<br>°C | Lab<br>analysis | Altitude<br>ft (l) | Static<br>water<br>level<br>ft (l) | Well<br>depth<br>ft (l) | Aquifer<br>code | Dover's eqn = e |
|-------------|--------------|----------|---------------------------|---------------------------------|--|--|--------------------------------------|---------------------|-----------------|--------------------|------------------------------------|-------------------------|-----------------|-----------------|
| 241         | 63M0028      | Roanoke  | 27N 58E 36 CDB            | 09 08 63                        | Well   | 4 miles SE of Culbertson                 | 2550                                 | 9.5                 | yes             | 2200               |                                    | 118                     | 110ALVM         |                 |
| 242         | 63M0024      | Richland | 28N 49E 36 CAA            | 11 06 63                        | Well   | In Cheese                                | 2360                                 | 8.9                 | yes             | 2000               |                                    | 68                      | 110ALVM         |                 |
| 243         | 63M0027      | Richland | 28N 49E 36 CDB            | 08 30 64                        | Well   | In Cheese                                | 2530                                 | 7.8                 | yes             | 2100               |                                    | 69                      | 110ALVM         |                 |
| 244         | 63M0029      | Richland | 28N 49E 36 CDB            | 08 30 64                        | Well   | 0.7 mile W of Culbertson                 | 2530                                 | 8.1                 | yes             | 2100               |                                    | 69                      | 110ALVM         |                 |
| 245         | 47M0048      | Richland | 28N 53E 25 DB             | 10 14 47                        | Well   | 2 miles W of Culbertson                  | 3760                                 | 8.3                 | yes             | 2170               |                                    | 90                      | 110CLUM         |                 |
| 246         | 63M0029      | Richland | 28N 53E 29 DAC            | 10 05 63                        | Well   | 3 miles W of Culbertson                  | 1990                                 | 11.1                | yes             | 2175               |                                    | 82                      | 110ALVM         |                 |
| 247         | 64M0032      | Richland | 28N 63E 30 DA             | 10 08 64                        | Well   | 3 miles W of Culbertson                  | 1280                                 |                     | yes             | 2180               |                                    | 106                     | 112DRFT         |                 |
| 248         | 63M0031      | Richland | 28N 53E 32 ADB            | 10 24 63                        | Well   | 3 miles W of Culbertson                  | 2220                                 | 9.5                 | yes             | 2250               |                                    | 88                      | 110ALVM         |                 |
| 249         | 63M0030      | Richland | 28N 53E 32 DCD            | 10 07 63                        | Well   | 3 miles W of Culbertson                  | 1750                                 | 10.6                | yes             | 2250               |                                    | 100                     | 110ALVM         |                 |
| 250         | 63M0032      | Richland | 28N 54E 35 CAA            | 09 08 63                        | Well   | 1.4 miles W of Culbertson                | 1990                                 |                     | yes             | 2000               |                                    | 30                      | 110ALVM         |                 |
| 251         | 63M0033      | Richland | 28N 54E 35 CAA            | 09 08 63                        | Well   | 1.4 miles W of Culbertson                | 1280                                 | 11.7                | yes             | 2000               |                                    | 78                      | 110ALVM         |                 |
| 252         | 63M0039      | Roanoke  | 28N 55E 31 ACC            | 09 10 63                        | Stream   | Big Muddy Creek, 5 miles W of Culbertson | 1820                                 | 25.0                | yes             | 2000               |                                    |                         |                 |                 |
| 253         | 63M0034      | Richland | 28N 55E 32 ACC            | 09 09 63                        | Well   | 0.7 mile W of Culbertson                 | 3490                                 |                     | yes             | 1930               |                                    | 100                     | 110ALVM         |                 |
| 254         | 47M0189      | Richland | 28N 55E 33 DAD            | 10 13 47                        | Well   | 0.7 mile W of Culbertson                 | 3230                                 | 7.2                 | yes             | 1920               |                                    | 15                      | 110ALVM         |                 |
| 255         | 63M0035      | Richland | 28N 56E 27 BD             | 09 10 63                        | Well   | Culbertson                               | 689                                  | 9.5                 | yes             | 1960               |                                    | 16                      | 110ALVM         |                 |
| 256         | 64M0030      | Richland | 28N 56E 29 CD             | 10 12 64                        | Well   | 0.5 mile N of Culbertson                 | 3000                                 | 7.8                 | yes             | 2430               | 29.7                               | 80                      | 110ALVM         |                 |
| 257         | 64M0029      | Richland | 28N 57E 25 ACA            | 10 12 64                        | Well   | 2 miles W of Culbertson                  | 2160                                 | 8.3                 | yes             | 2200               | 47.9                               | 147                     | 112DRFT         |                 |
| 258         | 47M0050      | Richland | 28N 57E 32 DB             | 10 13 47                        | Well   | 1 mile E of Culbertson                   | 1240                                 | 7.8                 | yes             | 2000               |                                    | 19                      | 110ALVM         |                 |
| 259         | 56M0017      | Danah    | 33N 49E 34 CB             | 06 16 56                        | Well   | 4.3 miles N of Bridgette                 |                                      |                     | yes             | 2684               |                                    | 337M3NC                 |                 |                 |

## 18 WOLF POINT

## WOLF POINT

## Chemical Analyses

| Map<br>ref<br>no. | Location<br>T H Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|-------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 1                 | 37N 49E 16 DD             | 06 17 76                        | Creek  | 70              | 3.6                    | 2              | 14.8                  | 2.1          | .05                    |                               | 214                                     |                                      | 7                | 13.1                          |
| 3                 | 37N 48E 05 AA             | 03 17 76                        | River  | 66              | 33                     | 200            | 7.3                   | .45          | .11                    |                               | 565                                     |                                      | 23               | 220                           |
| 5                 | 37N 46E 32 BB             | 07 10 70                        | Well   | 900             | 110                    | 1400*          |                       |              |                        |                               | 890                                     |                                      | 1500             | 2800                          |
| 12                | 36N 50E 22 CCC            | 06 17 76                        | Creek  | 72              | 42.1                   | 28             |                       |              |                        |                               | 453                                     |                                      | 3.1              | 39                            |
| 15                | 36N 47E 19 B              | 07 31 70                        | Well   | 88              | 24                     | 3000*          | 6.3                   | .24          | .06                    |                               | 195                                     |                                      | 4800             | 60                            |
| 17                | 35N 47E 12 ADD            | 06 17 76                        | Creek  | 41.3            | 22.5                   | 175            | 8.5                   | 3.6          | .16                    |                               | 477                                     |                                      | 8                | 180                           |
| 21                | 35N 50E 27 CBB            | 06 17 76                        | Creek  | 51              | 75                     | 68             | 7.5                   | .19          | .03                    |                               | 493                                     |                                      | 7                | 164                           |
| 25                | 33N 50E 03 CB             | 06 17 76                        | Creek  | 71              | 52                     | 64             | 10.2                  | .23          | .04                    |                               | 405                                     |                                      | 13.9             | 185                           |
| 27                | 32N 49E 04 CC             | 03 16 76                        | River  | 27.3            | 2.9                    | 4              | 9.2                   |              |                        |                               | 65                                      |                                      | 22               | 11                            |
| 28                | 32N 48E 01 CC             | 03 17 76                        | River  | 20.4            | 11.9                   | 82             | 7.9                   |              |                        |                               | 154                                     |                                      | 4.6              | 150                           |
| 29                | 32N 49E 13 DA             | 10 22 55                        | Well   | 840             | 210                    | 16000*         |                       |              |                        |                               | 294                                     |                                      | 24000            | 2900                          |
| 30                | 32N 50E 19 RC             | 08 03 53                        | Well   | 540             | 95                     | 8400*          |                       |              |                        |                               | 231                                     |                                      | 11000            | 3800                          |
| 31                | 31N 51E 04 AA             | 08 02 67                        | Well   | 1400            | 200                    | 39000          | 580                   |              |                        |                               | 378                                     |                                      | 61000            | 2500                          |
| 32                | 31N 51E 03 BC             | 03 03 65                        | Well   | 2203            | 240                    | 110000         | 1400                  |              |                        |                               | 146                                     |                                      | 170000           | 3000                          |
| 33                | 31N 51E 29 DCCD           | 03 16 76                        | Creek  | 16.8            | 4.4                    | 1              | 8.1                   |              |                        |                               | 57                                      |                                      | 1.5              | 15                            |
| 34                | 31N 50E 27 CD             | 03 16 76                        | River  | 32.4            | 21.4                   | 145            | 8.3                   | .55          | .04                    |                               | 434                                     |                                      | 8.2              | 122                           |
| 35                | 31N 48E 25 BC             | 03 30 66                        | Well   | 620             | 130                    |                |                       |              |                        |                               | 279                                     |                                      | 10000            | 2400                          |
| 36                | 31N 47E 33 AC             | 11 10 64                        | Well   |                 | 300                    | 110000         | 600                   |              |                        |                               | 146                                     |                                      | 170000           | 3700                          |
| 37                | 30N 48E 20 DD             | 01 30 57                        | Well   | 880             | 130                    | 21000*         |                       |              |                        |                               | 551                                     | 85                                   | 31000            | 4400                          |
| 38                | 30N 56E 07 BBB            | 06 16 76                        | Creek  | 35.7            | 6.1                    | 4.1            | 9.7                   | 2.1          | .14                    |                               | 117                                     |                                      | 1.7              | 35                            |
| 39                | 30N 57E 14 DD             | 06 16 76                        | Seep   | 42.1            | 4.4                    | 1.7            | 13                    | 1.2          | .14                    |                               | 152                                     |                                      | 1.7              | 13                            |
| 40                | 30N 58E 14 DCC            | 06 16 76                        | Creek  | 74              | 49.8                   | 167            | 14                    | .10          | .28                    |                               | 570                                     |                                      | 12               | 280                           |
| 41                | 30N 58E 27 BC             | 03 02 64                        | Well   | 4500            | 340                    |                |                       |              |                        |                               | 610                                     |                                      | 170000           | 1800                          |
| 42                | 30N 57E 25 BB             | 03 23 63                        | Well   |                 |                        | 90000*         |                       |              |                        |                               | 195                                     |                                      | 140000           | 1900                          |
| 43                | 30N 57E 35 BB             | 04 08 63                        | Well   | 7800            | 950                    | 84000          | 3000                  |              |                        |                               | 195                                     |                                      | 150000           | 540                           |
| 44                | 30N 56E 30 BBB            | 06 16 76                        | Creek  | 90              | 66                     | 69             | 10.6                  | 1.8          | .08                    |                               | 167                                     |                                      | 12.7             | 484                           |
| 46                | 29N 51E 08 CC             | 01 24 56                        | Well   | 1200            | 300                    | 20000*         |                       |              |                        |                               | 145                                     |                                      | 33000            | 120                           |
| 47                | 29N 50E 15 BB             | 01 24 56                        | Well   | 260             | 110                    | 6800*          |                       |              |                        |                               | 205                                     |                                      | 9000             | 3000                          |
| 48                | 29N 50E 05 CC             | 10 06 54                        | Well   | 5300            | 810                    | 75000*         |                       |              |                        |                               | 121                                     |                                      | 130000           | 2100                          |
| 49                | 29N 51E 17 DD             | 08 07 75                        | Well   |                 |                        | 95             |                       |              |                        |                               | 577                                     |                                      | 103              | 190                           |
| 50                | 29N 51E 19                | 08 07 75                        | Well   |                 |                        | 70000          |                       |              |                        |                               |   |                                      | 12250            | 4200                          |
| 56                | 28N 59E 28 DCC            | 06 16 76                        | Creek  | 44.1            | 20.6                   | 249            | 9                     | .46          | .02                    |                               | 518                                     |                                      | 11               | 300                           |
| 57                | 28N 59E 32 AAC            | 06 16 76                        | Creek  | 53              | 64                     | 500            | 15                    | .19          | .12                    |                               | 750                                     |                                      | 10               | 860                           |
| 60                | 28N 58E 20 DDD            | 06 16 76                        | Pond   | 28.1            | 70                     | 502            | 13                    | .03          | .01                    |                               | 732                                     |                                      | 9.5              | 793                           |
| 61                | 28N 56E 27 ADD            | 06 16 76                        | Seep   | 72              | 13.6                   | 111            | 15                    | .19          | .08                    |                               | 287                                     |                                      | 8.8              | 250                           |
| 62                | 28N 56E 27                | 08 06 75                        | Well   |                 |                        | 85             |                       |              |                        |                               | 414                                     |                                      | 8                | 380                           |
| 63                | 28N 51E 02                | 09 14 64                        | Well   | 970             | 120                    | 73000          | 500                   |              |                        |                               | 207                                     |                                      | 110000           | 2200                          |
| 64                | 28N 51E 12 CC             | 12 09 54                        | Well   | 1000            | 140                    | 77000*         |                       |              |                        |                               | 239                                     |                                      | 120000           | 2600                          |
| 65                | 28N 52E 18 AC             | 05 17 52                        | Well   | 890             | 130                    | 18000*         |                       |              |                        |                               | 262                                     |                                      | 28000            | 2400                          |
| 66                | 28N 51E 25 AC             | 01 09 67                        | Well   | 1000            | 150                    | 63000          | 500                   |              |                        |                               | 378                                     |                                      | 98000            | 1500                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

1" x 2" Sheet

## of Selected Waters

| Map<br>ref. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>pH | Temp.<br>C | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|-------------|----------------|-----------------|-----------|------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 1           | 1.7            | .05             | 7.6       |            | 449   | 218                            | 190                                       | 176   | .1                            | WQB                  |                        |                 | yes                           | 76W1092       |
| 3           | 1.9            | .22             | 7.94      | .5         | 1366  | 829                            | 300                                       | 463   | 5                             | WQB                  |                        |                 | yes                           | 76W0499       |
| 5           |                |                 | 7.0       |            |   |                                | 2700                                      | 730   |                               | Unknown              | 211JDRV                |                 | no                            | 70M5002       |
| 12          | .13            | .42             |           |            | 825   | 413                            | 352                                       | 372   | .6                            | WQB                  |                        |                 | yes                           | 76W1091       |
| 15          |                |                 | 6.9       |            |   |                                | 319                                       | 160   |                               | Unknown              | 211JDRV                |                 | no                            | 70M5001       |
| 17          | .12            | .46             | 8.2       |            | 1160  | 670                            | 196                                       | 391   | 5.4                           | WQB                  |                        |                 | yes                           | 76W1095       |
| 21          | .17            | .42             |           |            | 1107  | 616                            | 436                                       | 404   | 1.4                           | WQB                  |                        |                 | yes                           | 76W1093       |
| 25          | .03            | .19             | 7.85      |            | 1088  | 595                            | 391                                       | 332   | 1.4                           | WQB                  |                        |                 | yes                           | 76W1094       |
| 27          | .51            | .05             | 7.55      |            | 201   |                                | 80  | 53  | .2                            | WQB                  |                        |                 | no                            | 76W0495       |
| 28          | .31            | .08             | 7.42      |            | 595   |                                | 100                                       | 126   | 3.6                           | WQB                  |                        |                 | no                            | 76W0500       |
| 29          |                |                 |           |            |   |                                | 2960                                      | 241   |                               | Unknown              | 331CRLS                |                 | no                            | 55M0004       |
| 30          |                |                 | 6.4       |            |   |                                | 1740                                      | 189   |                               | Unknown              | 337MSNC                |                 | no                            | 53M0002       |
| 31          |                |                 | 7.7       |            |   | 104900                         | 4320                                      | 310   | 258                           | Unknown              | 331CRLS                |                 | no                            | 67M0004       |
| 33          | .51            | .08             | 7.19      | 1          | 119   |                                | 285500                                    | 6480  | 120                           | 595                  | Unknown                | 331CRLS         | no                            | 68M0049       |
|             |                |                 |           |            |   |                                | 50  | 47  | .1                            | WQB                  |                        |                 | no                            | 76W0496       |
| 34          | .07            | .23             | 7.96      | .1         | 947   | 772                            | 169                                       | 358   | 4                             | WQB                  |                        |                 | yes                           | 76W0497       |
| 35          |                |                 | 7.5       |            |   |                                | 2080                                      | 229   |                               | Unknown              | 331CRLS                |                 | no                            | 66M0029       |
| 36          |                |                 | 7.0       |            |   |                                | 1240                                      | 120   | 1362                          | Unknown              | 337MSNC                |                 | no                            | 64M0023       |
| 37          |                |                 | 8.9       |            |   |                                | 2730                                      | 594   |                               | Unknown              | 337MSNC                |                 | no                            | 57M0006       |
| 38          | .11            | .06             | 7.6       |            | 275   | 150                            | 114                                       | 96  | .2                            | WQB                  |                        |                 | yes                           | 76W1080       |
| 39          | .04            | .06             | 7.6       |            | 262   | 151                            | 123                                       | 125   | .1                            | WQB                  |                        |                 | yes                           | 76W1078       |
| 40          | .01            |                 | 8.0       |            | 1417  | 877                            | 389                                       | 468   | 3.7                           | WQB                  |                        |                 | yes                           | 76W1077       |
| 41          |                |                 | 7.7       |            |   |                                | 12600                                     | 500   |                               | Unknown              | 320AMSD                |                 | no                            | 64M0020       |
| 47          |                |                 | 7.6       |            |   |                                |   | 160   |                               | Unknown              | 320AMSD                |                 | no                            | 63M0008       |
| 43          |                |                 | 6.5       |            |   | 243400                         | 23400                                     | 160   | 239                           | Unknown              | 331MDSN                |                 | no                            | 63M0012       |
| 44          | .44            | .08             | 7.7       |            | 1186  | 814                            | 496                                       | 137   | 1.3                           | WQB                  |                        |                 | yes                           | 76W1079       |
| 46          |                |                 | 6.5       |            |   |                                | 4230                                      | 119   |                               | Unknown              | 331CRLS                |                 | no                            | 58M0014       |
| 47          |                |                 | 8.5       |            |   |                                | 1100                                      | 168   |                               | Unknown              | 331CRLS                |                 | no                            | 58M0013       |
| 48          |                |                 | 5.7       |            |   |                                | 16600                                     | 99  |                               | Unknown              | 331CRLS                |                 | no                            | 54M0009       |
| 49          |                |                 | 7.97      |            | 1753  |                                |   | 473   |                               | WQB                  |                        |                 | no                            | 75W1443       |
| 50          |                |                 | 3.98      |            | 50000                                       |                                |   |   |                               | WQB                  |                        |                 | no                            | 75W1442       |
| 56          | .05            | .17             | 8.2       | 18         | 1380  | 889                            | 195                                       | 425   | 7.8                           | WQB                  |                        |                 | yes                           | 76W1075       |
| 57          | .03            | .27             | 8.0       |            | 2407  | 1872                           | 396                                       | 615   | 10.9                          | WQB                  |                        |                 | yes                           | 76W1076       |
| 60          | .05            | .21             | 7.7       | 19         | 2297  | 1776                           | 357                                       | 600   | 11.6                          | WQB                  |                        |                 | yes                           | 76W1074       |
| 61          | .13            | .07             | 7.6       | 17         | 963   | 610                            | 235                                       | 235   | 3.2                           | WQB                  |                        |                 | yes                           | 76W1073       |
| 62          |                |                 | 7.84      |            | 1297  |                                |   | 339   |                               | WQB                  |                        |                 | no                            | 75W1440       |
| 63          |                |                 | 8.1       |            |   | 186900                         | 2920                                      | 170   | 588                           | Unknown              | 331CRLS                |                 | no                            | 64M0022       |
| 64          |                |                 |           |            |   |                                | 3070                                      | 196   |                               | Unknown              | 331MDSN                |                 | no                            | 54M0008       |
| 65          |                |                 | 7.4       |            |   |                                | 2760                                      | 215   |                               | Unknown              | 337MSNC                |                 | no                            | 52M0006       |
| 66          |                |                 | 6.8       |            |   | 164300                         | 3110                                      | 310   | 491                           | Unknown              | 331CRLS                |                 | no                            | 67M0002       |

## WOLF POINT

## Chemical Analyses

| Map<br>ref<br>no. | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potes-<br>sum<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|-------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| G7                | 78N 51E 25 AC             | 01 09 67                        | Well   | 820             | 85                     | 22000          | 850                  |              |                        |                               | 439                                     |                                      | 35000            | 2200                          |
| G8                | 78N 51E 27 AC             | 01 24 56                        | Well   | 1400            | 230                    | 22000*         |                      |              |                        |                               | 475                                     |                                      | 36000            | 1400                          |
| J1                | 27N 47E 15                |                                 | Well   | 18              |                        | 1900*          |                      |              |                        |                               | 980                                     |                                      | 2400             |                               |
| 77                | 26N 48E 02 CA             | 08 31 75                        | Seep   | 389             | 634                    | 5800           | 19.3                 |              |                        |                               | 935                                     |                                      | 137              | 14400                         |
| 83                | 27N 50E 35                | 08 30 75                        | River  | 55              | 54                     | 424            | 8.5                  | < .01        |                        |                               | 504                                     | 8                                    | 14               | 815                           |
| 84                | 27N 51E 06 DDD            | 12 27 65                        | Well   | 8900            | 1400                   | 68000*         |                      |              |                        |                               | 37                                      |                                      | 120000           | 670                           |
| 88                | 26N 54E 15 88B            | 06 15 76                        | Creek  | 63              | 204                    | 1028           | 11                   | < .01        | 06                     |                               | 506                                     |                                      | 21               | 2700                          |
| 91                | 26N 55E 01 D8B            | 06 15 76                        | Creek  | 124             | 178                    | 566            | 15                   | 01           | 03                     |                               | 362                                     |                                      | 10               | 1928                          |
| 100               | 37N 58E 05 CA             | 09 28 66                        | Well   | 5000            | 890                    | 110000*        |                      |              |                        |                               | 173                                     |                                      | 180000           | 770                           |
| 108               | 36N 53E 18 DB             | 08 02 75                        | Pit    |                 |                        | 1500           |                      |              |                        |                               | 146                                     |                                      | 2875             | 770                           |
| 109               | 36N 53E 19 B              | 08 02 75                        | Pit    |                 |                        | 2500           |                      |              |                        |                               | 194                                     |                                      | 3850             | 55                            |
| 113               | 35N 58E 28                | 07 30 75                        | Pit    |                 |                        | 422            |                      |              |                        |                               | 294                                     |                                      | 750              | 11                            |
| 114               | 36N 58E 26                | 07 30 75                        | Spring |                 |                        | 525            |                      |              |                        |                               | 1027                                    |                                      | 24               | 580                           |
| 115               | 36N 58E 26                | 07 30 75                        | Spring |                 |                        | 525            |                      |              |                        |                               | 972                                     |                                      | 5                | 580                           |
| 116               | 36N 58E 36                | 07 30 75                        | Lake   |                 |                        | 8950           |                      |              |                        |                               | 2045                                    | 778                                  | 850              | 12900                         |
| 117               | 36N 58E 36                | 07 30 75                        | Trench |                 |                        | 29200          |                      |              |                        |                               | 1298                                    |                                      | 4800             | 1200                          |
| 119               | 36N 58E 27 DA             | 07 31 75                        | Pond   |                 |                        | 8500           |                      |              |                        |                               | 152                                     |                                      | 1200             | 300                           |
| 122               | 36N 58E 32                | 07 31 75                        | Pond   |                 |                        | 278            |                      |              |                        |                               | 242                                     | 42                                   | 257              | 15                            |
| 123               | 35N 58E 17                | 07 30 75                        | Pond   |                 |                        | 700            |                      |              |                        |                               | 329                                     | 2                                    | 721              | 1100                          |
| 124               | 35N 58E 17                | 07 30 75                        | Well   |                 |                        | 198            |                      |              |                        |                               | 748                                     |                                      | 7                | 530                           |
| 125               | 35N 58E 17                | 07 30 75                        | Well   |                 |                        | 338            |                      |              |                        |                               | 917                                     |                                      | 15               | 920                           |
| 126               | 35N 58E 09                | 07 30 75                        | Pond   |                 |                        | 3600           |                      |              |                        |                               | 326                                     |                                      | 6840             | 20                            |
| 127               | 35N 58E 17 CA             | 07 30 75                        | Pit    |                 |                        | 3800           |                      |              |                        |                               | 117                                     |                                      | 7450             | 160                           |
| 128               | 35N 58E 19                | 07 30 75                        | Pit    |                 |                        | 4000           |                      |              |                        |                               | 119                                     |                                      | 5850             | 80                            |
| 133               | 35N 55E 14 08C            | 06 17 76                        | Creek  | 88              | 45.4                   | 115            | 10.3                 | 43           | .05                    |                               | 365                                     |                                      | 6.5              | 301                           |
| 135               | 35N 54E 16 CDA            | 06 17 76                        | Creek  | 40.9            | 27.7                   | 155            | 8.1                  | 1.5          | 11                     |                               | 447                                     |                                      | 6.7              | 168                           |
| 138               | 35N 54E 29 BCA            | 06 17 76                        | Creek  | 41.7            | 37.9                   | 72             | 9.4                  | 14           | .30                    |                               | 267                                     |                                      | 3.5              | 188                           |
| 141               | 35N 52E 09 BAD            | 06 17 76                        | Creek  | 59              | 48.2                   | 443            | 15.3                 | 1.3          | 08                     |                               | 521                                     |                                      | 12.1             | 843                           |
| 146               | 34N 52E 03 DD             | 08 03 75                        | Well   |                 |                        | 820            |                      |              |                        |                               | 1100                                    |                                      | 35               | 1900                          |
| 147               | 35N 55E 21 CDD            | 06 16 76                        | Creek  | 90              | 48.2                   | 34             | 8.9                  | .23          | .07                    |                               | 387                                     |                                      | 5.7              | 172                           |
| 148               | 35N 55E 27 DDD            | 06 16 76                        | Creek  | 117             | 72                     | 80             | 13.8                 | .32          | .20                    |                               | 516                                     |                                      | 22.9             | 310                           |
| 149               | 34N 56E 10 DDD            | 06 16 76                        | Creek  | 60              | 3.5                    | 8.6            | 9.4                  | .84          | .14                    |                               | 170                                     |                                      | 2.5              | 52                            |
| 150               | 33N 56E 05 AB             | 08 30 57                        | Well   | 1400            | 320                    | 62000*         |                      |              |                        |                               | 356                                     |                                      | 96000            | 3400                          |
| 151               | 33N 56E 03 CC             | 09 14 64                        | Well   | 750             | 140                    | 110000         | 3600                 |              |                        |                               | 232                                     |                                      | 180000           | 840                           |
| 155               | 32N 55E 27 BAA            | 06 16 76                        | Creek  | 47.1            | 34                     | 91             | 10.5                 | 2.6          | .14                    |                               | 264                                     |                                      | 8                | 231                           |
| 160               | 32N 59E 29 A              | 10 26 60                        | Well   | 12000           | 1800                   | 110000         | 4200                 |              |                        |                               | 110                                     |                                      | 200000           | 290                           |
| 161               | 32N 59E 32 CD             | 03 20 68                        | Well   | 170             | 36                     | 5700           | 100                  |              |                        |                               | 2560                                    |                                      | 7800             | 68                            |
| 165               | 32N 57E 30                | 04 09 76                        | Lake   | 34.8            | 23.8                   | 110            |                      |              |                        |                               | 322                                     |                                      | 6.2              | 162                           |
| 166               | 32N 57E 31 A              | 05 06 76                        | Lake   | 34.1            | 39.3                   | 150            |                      |              |                        |                               | 345                                     |                                      | 9.1              | 264                           |
| 167               | 32N 55E 36                | 04 09 76                        | Lake   | 40.8            | 19.5                   | 96             |                      |              |                        |                               | 281                                     |                                      | 4.4              | 162                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## 1' x 2" Sheet (Cont.)

## of Selected Waters (Cont.)

| Map<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab<br>µM | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|------------|----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 67         |                | 7.1             |           |                      |   | 60970                          | 2400                                      | 360   | 196                           | Unknown              | 331K88Y                | no              | 67M0003                       |               |
| 68         |                | 6.6             |           |                      |   |                                | 4440                                      | 390   |                               | Unknown              | 331HETH                | no              | 56M0012                       |               |
| 71         |                |                 |           |                      |   |                                | 45  | 804   |                               | Unknown              | 211JDRV                | no              | 42M0002                       |               |
| 77         | < 10           |                 | 8.02      | 17                   | 21000                                       | 22310                          | 3980                                      | 766   | 42.2                          | WQB                  |                        | no              | 75W1762                       |               |
| 83         | 02             |                 | 8.35      | 15                   | 2282  | 1626                           | 360                                       | 426   | 9.7                           | WQB                  |                        | yes             | 76W1718                       |               |
| 84         |                | 6.3             |           |                      |   |                                | 28000                                     | 30  |                               | Unknown              | 331CRLS                | no              | 85M0047                       |               |
| 88         | 07             | 78              | 9.1       | 73                   | 5017  | 4277                           | 997                                       | 415   | 14.2                          | WQB                  |                        | yes             | 76W1071                       |               |
| 91         | 05             | 08              | 8.0       | 21                   | 3748  | 2998                           | 1040                                      | 297   | 7.6                           | WQB                  |                        | yes             | 76W1072                       |               |
| 100        |                | 5.5             |           |                      |   |                                | 16100                                     | 142   |                               | Unknown              | 331MOSN                | no              | 86M0030                       |               |
| 108        |                | 6.9             |           |                      | 8040  |                                |   | 120   |                               | WQB                  |                        | no              | 75W1437                       |               |
| 109        |                | 7.48            |           |                      | 12000                                       |                                |   | 159   |                               | WQB                  |                        | no              | 75W1438                       |               |
| 113        |                | 7.65            |           |                      | 2420  |                                |   | 241   |                               | WQB                  |                        | no              | 76W1434                       |               |
| 114        |                | 7.97            |           |                      | 2613  |                                |   | 843   |                               | WQB                  |                        | no              | 75W1430                       |               |
| 115        |                | 8.08            |           |                      | 2560  |                                |   | 797   |                               | WQB                  |                        | no              | 76W1431                       |               |
| 116        |                | 9.44            |           |                      | 26000                                       |                                |   | 2970  |                               | WQB                  |                        | no              | 75W1429                       |               |
| 117        |                | 6.6             |           |                      | 50000                                       |                                |   | 1060  |                               | WQB                  |                        | no              | 75W1428                       |               |
| 119        |                | 7.48            |           |                      | 35600                                       |                                |   | 125   |                               | WQB                  |                        | no              | 75W1435                       |               |
| 122        |                | 9.31            |           |                      | 1384  |                                |   | 268   |                               | WQB                  |                        | no              | 75W1441                       |               |
| 123        |                | 8.35            |           |                      | 4310  |                                |   | 274   |                               | WQB                  |                        | no              | 75W1433                       |               |
| 124        |                | 7.37            |           |                      | 2044  |                                |   | 613   |                               | WQB                  |                        | no              | 75W1426                       |               |
| 125        |                | 7.65            |           |                      | 2822  |                                |   | 752   |                               | WQB                  |                        | no              | 75W1427                       |               |
| 126        |                | 8.1             |           |                      | 17300                                       |                                |   | 267   |                               | WQB                  |                        | no              | 75W1432                       |               |
| 127        |                | 7.97            |           |                      | 19400                                       |                                |   | 96  |                               | WQB                  |                        | no              | 75W1425                       |               |
| 128        |                | 7.67            |           |                      | 14000                                       |                                |   | 98  |                               | WQB                  |                        | no              | 75W1424                       |               |
| 133        | 04             | 12              | 8.0       |                      | 1088  | 725                            | 256                                       | 299   | 2.7                           | WQB                  |                        | yes             | 76W1087                       |               |
| 135        | 04             | 22              | 8.2       |                      | 1704  | 626                            | 216                                       | 367   | 4.6                           | WQB                  |                        | yes             | 76W1088                       |               |
| 136        | 11             | 12              | 7.85      |                      | 1704  | 484                            | 260                                       | 219   | 1.9                           | WQB                  |                        | yes             | 76W1089                       |               |
| 141        | 04             | 12              | 8.0       |                      | 2315  | 1677                           | 345                                       | 427   | 10.4                          | WQB                  |                        | yes             | 76W1090                       |               |
| 145        |                | 7.8             |           | 16                   | 4600  |                                |   | 903   |                               | WQB                  |                        | no              | 75W1439                       |               |
| 147        | 03             | 11              | 7.9       |                      | 956   | 550                            | 424                                       | 317   | 7                             | WQB                  |                        | yes             | 76W1086                       |               |
| 148        | 07             | 12              | 8.0       |                      | 1350  | 870                            | 590                                       | 423   | 1.4                           | WQB                  |                        | yes             | 76W1085                       |               |
| 149        | 04             | 08              | 7.4       |                      | 452   | 220                            | 166                                       | 139   | 3                             | WQB                  |                        | yes             | 76W1084                       |               |
| 150        |                | 6.3             |           |                      |   |                                | 4810                                      | 292   |                               | Unknown              | 337MSNC                | no              | 57M0011                       |               |
| 151        |                | 7.3             |           |                      | 291800                                      | 2450                           | 190                                       | 987   |                               | Unknown              | 331MDSN                | no              | 64M0024                       |               |
| 155        | 09             | 11              | 7.8       |                      | 846   | 548                            | 258                                       | 216   | 2.5                           | WQB                  |                        | yes             | 76W1082                       |               |
| 160        |                | 6.8             |           |                      | 323900                                      | 36600                          | 90  | 250   |                               | Unknown              | 337MSNC                | no              | 60M0011                       |               |
| 161        |                | 7.8             |           |                      | 15140                                       | 573                            | 2100                                      | 104   |                               | Unknown              | 217MDOY                | no              | 68M0004                       |               |
| 165        |                |                 |           |                      | 748   | 185                            |   | 3.5   |                               | MF&G                 |                        | no              | 02W0010                       |               |
| 166        |                | 7.72            |           |                      | 1012  | 842                            | 247                                       | 283   | 4.2                           | MF&G                 |                        | no              | 75W0638                       |               |
| 167        |                | 7.53            |           |                      | 890   | 182                            |   | 3.1   |                               | MF&G                 |                        | no              | 02W0009                       |               |

## WOLF POINT

## Chemical Analyses

| Map<br>ref<br>no | Location<br>T R Sec Tract | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potes-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 168              | 32N 56E 31 CCB            | 06 16 76                        | Lake   | 40.4            | 20                     | 54             |                       |              |                        |                               | 228                                     |                                      | 4.9              | 104                           |
| 169              | 32N 56E 31 CCB            | 06 16 76                        | Lake   | 34.5            | 36.5                   | 238            | 16.4                  | 1.3          | .06                    |                               | 424                                     | 24                                   | 16.1             | 351                           |
| 170              | 32N 55E 30 CDD            | 06 16 76                        | Creek  | 81              | 55                     | 130            | 12.8                  | .43          | .07                    |                               | 327                                     |                                      | 6.7              | 393                           |
| 173              | 31N 45E 23 AA             | 01 31 57                        | Well   | 1300            | 240                    | 23000*         |                       |              |                        |                               | 551                                     |                                      | 35000            | 4200                          |
| 174              | 31N 45E 23 AA             | 01 01 57                        | Well   | 480             | 190                    | 9200*          |                       |              |                        |                               | 259                                     | 64                                   | 14000            | 2300                          |
| 175              | 30N 45E 24 AD             | 03 02 56                        | Well   | 780             | 150                    | 13000*         |                       |              |                        |                               | 346                                     |                                      | 18000            | 4300                          |
| 176              | 30N 45E 24 AD             | 03 16 56                        | Well   | 10000           | 2000                   | 110000*        |                       |              |                        |                               | 162                                     |                                      | 190000           | 510                           |
| 177              | 36N 58E 27                | 07 30 75                        | Seep   |                 |                        | 5800           |                       |              |                        |                               | 382                                     |                                      | 12100            | 103                           |
| 178              | 35N 58E 17 ADD            | 03 07 77                        | Well   | 164             | 88                     | 177            | 6.8                   | .07          | .55                    | 22.8                          | 732                                     |                                      | 6.5              | 527                           |
| 179              | 27N 50E 35                | 07 27 76                        | River  | 55              | 62                     | 405            | 9.4                   | <.05         |                        |                               | 478                                     | 16                                   | 13               | 803                           |
| 181              | 26N 48E 15 CB             | 03 16 76                        | Creek  | 33.2            | 18.7                   | 45             | 9.7                   |              |                        |                               | 125                                     |                                      | 5.1              | 145                           |
| 183              | 26N 44E 01 CCB            | 09 06 63                        | Canal  | 56              | 20                     | 50             | 4.1                   | .08          |                        |                               | 189                                     |                                      | 8.4              | 182                           |
| 184              | 26N 44E 10 BCC            | 09 05 63                        | Well   | 76              | 2.8                    | 145            | 3.9                   | 3.5          | 2.1                    | 14                            | 377                                     |                                      | 13               | 296                           |
| 185              | 26N 45E 03 AAA            | 09 06 63                        | Well   | 179             | 59                     | 422            | 7.4                   | 7.0          | 2.8                    | 19                            | 482                                     |                                      | 33               | 1160                          |
| 186              | 26N 45E 07 ADA            | 09 09 63                        | Well   |                 |                        | 56             |                       | 3.1          |                        |                               | 256                                     |                                      |                  | 140                           |
| 187              | 26N 48E 02 DBB            | 11 06 63                        | Well   | 132             | 46                     | 360            | 7.0                   | 9.5          | 1.2                    | 20                            | 685                                     |                                      | 13               | 665                           |
| 188              | 26N 48E 02 DCD            | 10 22 63                        | Well   |                 |                        | 402            |                       | 1.8          |                        |                               | 627                                     |                                      |                  | 522                           |
| 189              | 26N 52E 06 CD             | 07 28 64                        | Well   | 1100            | 130                    | 15000          | 260                   |              |                        |                               | 537                                     |                                      | 24000            | 2600                          |
| 190              | 26N 58E 01 BAD            | 04 15 64                        | Well   | 256             | 102                    | 544            | 16                    | .97          |                        | 20                            | 1060                                    |                                      | 24               | 1400                          |
| 191              | 27N 45E 33 CDD            | 10 09 47                        | Well   | 14              | 45                     | 588            | 18                    | 2.1          |                        | 12                            | 522                                     |                                      | 26               | 1010                          |
| 192              | 27N 46E 26 ABA            | 11 17 63                        | Well   | 22              | 6.1                    | 115            | 2.7                   |              |                        | 17                            | 324                                     |                                      | 4                | 61                            |
| 193              | 27N 46E 26 DDC            | 10 08 63                        | Well   | 108             | 45                     | 354            | 5.2                   | 4.4          | 1.5                    | 17                            | 718                                     |                                      | 14               | 572                           |
| 194              | 27N 48E 35 DCD            | 10 22 63                        | Well   | 103             | 34                     | 342            | 5.4                   | 3.5          | .53                    | 18                            | 720                                     |                                      | 16               | 487                           |
| 195              | 27N 47E 14 CC             | 10 18 63                        | Well   | 85              | 32                     | 402            | 5.4                   | 5.1          | .53                    | 20                            | 859                                     |                                      | 12               | 635                           |
| 196              | 27N 47E 15 AC             | 10 10 47                        | Well   | 106             | 36                     | 220            | 6.0                   | 2.8          |                        | 16                            | 412                                     |                                      | 11               | 529                           |
| 197              | 27N 47E 15 CB             | 10 15 47                        | Well   | 74              | 33                     | 359            | 2.4                   | 1.5          |                        | 25                            | 532                                     |                                      | 18               | 572                           |
| 198              | 27N 47E 15 DCC            | 10 16 64                        | Well   | 56              | 26                     | 310            | 5.8                   | 5.1          |                        | 18                            | 664                                     |                                      | 30               | 314                           |
| 199              | 27N 47E 21 AAD            | 10 16 64                        | Well   | 60              | 30                     | 288            | 5.3                   | 5.8          |                        | 17                            | 623                                     |                                      | 8.6              | 360                           |
| 200              | 27N 47E 22 BBD            | 10 16 64                        | Well   | 49              | 24                     | 310            | 5.1                   | 3.1          |                        | 18                            | 576                                     |                                      | 10               | 390                           |
| 201              | 27N 47E 24 CCC            | 07 23 64                        | Well   | 100             | 55                     | 162            | 7.1                   | 8.8          |                        | 19                            | 486                                     |                                      | 9.3              | 402                           |
| 202              | 27N 47E 25 DD             | 08 05 63                        | Well   | 124             | 63                     | 200            | 36                    | .04          | 1.2                    | 12                            | 442                                     |                                      | 48               | 473                           |
| 203              | 27N 47E 25 DD             | 10 10 47                        | Well   | 174             | 58                     | 240            | 3.2                   | 10           |                        | 18                            | 688                                     |                                      | 29               | 503                           |
| 204              | 27N 48E 02 CAA            | 10 15 64                        | Well   | 113             | 62                     | 728            | 7.6                   | 3.5          |                        | 18                            | 548                                     |                                      | 30               | 1560                          |
| 205              | 27N 48E 07 BDB            | 08 07 83                        | Well   |                 |                        | 750            |                       | 3.3          |                        |                               | 746                                     |                                      |                  | 1560                          |
| 206              | 27N 48E 07 DCD            | 09 07 63                        | Well   | 95              | 51                     | 447            | 5.7                   | 2.8          | 1.4                    | 18                            | 722                                     |                                      | 14               | 815                           |
| 207              | 27N 48E 11 ACB            | 09 07 64                        | Well   | 156             | 71                     | 603            | 7.2                   | 7.0          |                        | 17                            | 716                                     |                                      | 30               | 1320                          |
| 208              | 27N 48E 10 CB             | 10 10 47                        | Well   | 100             | 40                     | 197            | 11                    | 2.3          |                        | 14                            | 662                                     |                                      | 6                | 288                           |
| 209              | 27N 48E 20 DBA            | 08 06 63                        | Well   | 75              | 27                     | 115            |                       | 3.5          | 3.5                    | .11                           | 18                                      |                                      | 7.1              | 178                           |
| 210              | 27N 48E 28 D              | 09 06 63                        | Canal  |                 |                        | 53             |                       | .14          |                        |                               | 190                                     |                                      |                  | 168                           |
| 211              | 27N 48E 30 ABA            | 07 23 64                        | Well   | 211             | 118                    | 376            | 7.8                   | 15           |                        | 18                            | 555                                     |                                      | 26               | 1270                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

1" x 2" Sheet (Cont.)

of Selected Waters (Cont.)

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluoride<br>(F) | Lab       |                      | specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Traces<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|-----------------|-----------|----------------------|--------------------------------------|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|--------------------------------|---------------|
|                    |                |                 | Lab<br>pH | Field<br>Temp.<br>C° |                                      |                                |   |   |                               |                      |                        |                 |                                |               |
| 168                |                |                 | 7.47      |                      | 587                                  | 336                            | 183                                       | 187   |                               | MF&G                 |                        |                 | no                             | 75W0639       |
| 169                | .20            | .19             | 8.7       |                      | 1403                                 | 923                            | 236                                       | 388   | 6.7                           | WQB                  |                        |                 | yes                            | 76W1081       |
| 170                | .05            | .09             | 8.1       |                      | 1296                                 | 820                            | 380                                       | 268   | 2.9                           | WQB                  |                        |                 | yes                            | 76W1083       |
| 173                |                |                 | 6.7       |                      |                                      |                                | 4230                                      | 452   |                               | Unknown              |                        | 337MSNC         | no                             | 57M0010       |
| 174                |                |                 | 8.0       |                      |                                      |                                | 1200                                      | 319   | 2.4                           | Unknown              |                        | 337MSNC         | no                             | 57M0009       |
| 175                |                |                 | 8.6       |                      |                                      |                                | 2520                                      | 284   |                               | Unknown              |                        | 224PIPR         | no                             | 56M0005       |
| 176                |                |                 | 8.0       |                      |                                      |                                | 33200                                     | 133   |                               | Unknown              |                        | 331CRLS         | no                             | 56M0015       |
| 177                |                |                 | 7.45      |                      | 30200                                |                                |   | 313   |                               | WQB                  |                        |                 | no                             | 76W1436       |
| 178                | 1.446          | .1              | 7.35      |                      | 1903                                 | 1355                           | 772                                       | 600   | 2.8                           | Private              | 70                     | 125TGRV         | no                             | 76M1648       |
| 179                | .02            |                 | 8.4       | 20                   | 2212                                 | 1842                           | 393                                       | 419   | 8.9                           | EPA                  |                        |                 | yes                            | 76W1712       |
| 181                | .47            |                 | 7.25      |                      | 524                                  | 382                            | 160                                       | 103   | 1.5                           | WQB                  |                        |                 | no                             | 76W0489       |
| 183                | .226           | .8              | 7.7       | 17.2                 | 648                                  | 403                            | 221                                       | 156   | 1.5                           | USGS                 |                        |                 | no                             | 63M0025       |
| 184                | .023           | .5              | 7.9       |                      | 1150                                 | 742                            | 304                                       | 309   | 3.6                           | USGS                 | 18                     | 110ALVM         | no                             | 63M0056       |
| 185                | .158           | .4              | 8.0       | 16.1                 | 2800                                 | 2127                           | 989                                       | 395   | 7.0                           | USGS                 | 48                     | 110ALVM         | no                             | 63M0057       |
| 186                |                |                 | 7.6       | 13.3                 | 686                                  |                                | 244                                       | 210   | 1.6                           | USGS                 | 63                     | 110ALVM         | no                             | 63M0058       |
| 187                | 1.627          | .7              | 7.0       |                      | 2190                                 | 1594                           | 519                                       | 562   | 6.7                           | USGS                 | 106                    | 110ALVM         | no                             | 63M0053       |
| 188                |                |                 | 7.8       | 10.6                 | 1960                                 |                                | 173                                       | 514   | 13.0                          | USGS                 | 105                    | 110ALVM         | no                             | 63M0028       |
| 189                |                |                 | 7.0       |                      |                                      | 43350                          | 3280                                      | 440   | 114                           | Unknown              |                        | 331MOSN         | no                             | 64M0021       |
| 190                | 2.711          | .7              | 7.8       | 8.9                  | 3610                                 | 2888                           | 1060                                      | 889   | 7.3                           | USGS                 | 90                     | 110ALVM         | no                             | 64M0054       |
| 191                | .497           | .8              | 7.3       | 7.8                  | 2670                                 | 1974                           | 220                                       | 430   | 17.0                          | USGS                 | 21                     | 110ALVM         | no                             | 47M0057       |
| 192                | .068           | 1.4             | 8.0       | 8.3                  | 614                                  | 388                            | 80  | 264   | 5.6                           | USGS                 | 42                     | 110ALVM         | no                             | 63M0060       |
| 193                | .858           | .5              | 7.8       |                      | 2090                                 | 1476                           | 465                                       | 589   | 7.2                           | USGS                 | 80                     | 110ALVM         | no                             | 63M0061       |
| 194                | .294           | .7              | 7.9       | 9.5                  | 1950                                 | 1365                           | 396                                       | 591   | 7.5                           | USGS                 | 73                     | 110ALVM         | no                             | 63M0062       |
| 195                | .294           | .8              | 7.7       |                      | 2150                                 | 1523                           | 344                                       | 540   | 9.4                           | USGS                 | 106                    | 110ALVM         | no                             | 63M0052       |
| 196                | .565           | .2              | 7.9       | 8.9                  | 1740                                 | 1132                           | 412                                       | 338   | 4.7                           | USGS                 | 93                     | 110ALVM         | no                             | 47M0054       |
| 197                | .904           | .8              | 8.3       | 10.6                 | 1890                                 | 1349                           | 320                                       | 436   | 8.7                           | USGS                 | 100                    | 110ALVM         | no                             | 47M0055       |
| 198                | .090           | 1.1             | 7.9       | 7.8                  | 1830                                 | 1103                           | 248                                       | 561   | 8.6                           | USGS                 | 110                    | 110ALVM         | no                             | 64M0046       |
| 199                | .158           | .9              | 8.0       | 7.8                  | 1590                                 | 1083                           | 272                                       | 511   | 7.6                           | USGS                 | 100                    | 110ALVM         | no                             | 64M0046       |
| 200                | .228           | 1.0             | 8.0       | 8.3                  | 1590                                 | 1094                           | 223                                       | 472   | 9.1                           | USGS                 | 94                     | 110ALVM         | no                             | 64M0047       |
| 201                | .520           | .7              | 7.8       | 9.5                  | 1430                                 | 1004                           | 477                                       | 399   | 3.2                           | USGS                 | 54                     | 110ALVM         | no                             | 64M0039       |
| 202                | 33.661         | .3              | 7.5       | 16.1                 | 1900                                 | 1209                           | 568                                       | 363   | 3.6                           | USGS                 | 20                     | 110ALVM         | no                             | 64M0043       |
| 203                | 22.591         | .3              | 7.7       | 8.3                  | 1820                                 | 1383                           | 664                                       | 564   | 4.0                           | USGS                 | 20                     | 110ALVM         | no                             | 47M0058       |
| 204                | .565           | .9              | 8.1       | 7.2                  | 3700                                 | 2790                           | 536                                       | 448   | 14.0                          | USGS                 | 51                     | 110ALVM         | no                             | 64M0053       |
| 205                |                |                 | 7.6       | 7.8                  | 3880                                 |                                | 540                                       | 612   | 14.0                          | USGS                 | 48                     | 110ALVM         | no                             | 63M0044       |
| 206                | 1.265          | .7              | 7.9       | 7.2                  | 2540                                 | 1808                           | 447                                       | 592   | 9.2                           | USGS                 | 58                     | 110ALVM         | no                             | 63M0065       |
| 207                | .610           | .8              | 7.9       | 7.2                  | 3340                                 | 2585                           | 879                                       | 587   | 10.0                          | USGS                 | 52                     | 110ALVM         | no                             | 64M0052       |
| 208                | .904           | .8              | 7.6       | 7.8                  | 1500                                 | 986                            | 414                                       | 543   | 4.2                           | USGS                 | 36                     | 110ALVM         | no                             | 47M0052       |
| 209                | .045           | 6               | 7.9       |                      | 982                                  | 643                            | 300                                       | 358   | 2.9                           | USGS                 | 65                     | 110ALVM         | no                             | 63M0054       |
| 210                |                |                 | 7.6       | 20.6                 | 655                                  |                                | 221                                       | 156   | 1.6                           | USGS                 |                        |                 | no                             | 63M0036       |
| 211                | .949           | 6               | 7.9       | 8.9                  | 2920                                 | 2317                           | 1010                                      | 455   | 5.1                           | USGS                 | 60                     | 110ALVM         | no                             | 64M0050       |

## WOLF POINT

## Chemical Analyses

| Map<br>ref.<br>no | Location<br>T R Sec Trect | Collection<br>date<br>Mo Day Yr | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sum<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Sicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|-------------------|---------------------------|---------------------------------|--------|-----------------|------------------------|----------------|----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
| 212               | 27N 48E 30 BBA            | 10 14 64                        | Well   | 362             | 152                    | 436            | 15                   | 25           |                        | 17                            | 830                                     |                                      | 48               | 1750                          |
| 213               | 27N 48E 30 CAD            | 08 29 64                        | Well   | 80              | 56                     | 358            | 5.0                  | 4.3          |                        | 20                            | 704                                     |                                      | 8.5              | 582                           |
| 214               | 27N 49E 01 ADA            | 10 10 63                        | Well   |                 |                        | 146            |                      |              |                        |                               |   |                                      |                  | 311                           |
| 215               | 27N 49E 01 ADA            | 10 10 63                        | Well   |                 |                        | 95             |                      | .68          |                        |                               |   |                                      |                  | 237                           |
| 216               | 27N 49E 01 DAD            | 10 28 63                        | Well   | 49              | 17                     | 193            | 3.5                  |              |                        | 16                            | 377                                     |                                      | 8.4              | 292                           |
| 217               | 27N 49E 03 AAB            | 09 02 64                        | Well   | 70              | 35                     | 224            | 4.2                  | .06          |                        | 13                            | 430                                     |                                      | 13               | 424                           |
| 218               | 27N 49E 03 CA             | 10 14 47                        | Well   | 58              | 25                     | 255            | 10                   | .34          |                        | 11                            | 534                                     |                                      | 12               | 345                           |
| 219               | 27N 49E 09 DBC            | 09 07 63                        | Well   |                 |                        | 342            |                      | 2.6          |                        |                               | 782                                     |                                      |                  | 360                           |
| 220               | 27N 49E 12 ADD            | 10 31 63                        | Well   | 85              | 42                     | 82             | 2.4                  |              |                        | 16                            | 380                                     |                                      | 12               | 226                           |
| 221               | 27N 49E 13 AAC            | 11 05 63                        | Well   | 89              | 31                     | 107            | 4.8                  | 7.4          | .88                    | 22                            | 453                                     |                                      | 8.8              | 187                           |
| 222               | 27N 50E 01 D              | 09 07 63                        | Stream |                 |                        | 258            |                      |              |                        |                               | 550                                     |                                      |                  | 177                           |
| 223               | 27N 50E 12 AB             | 10 15 64                        | Well   | 28              | 15                     | 234            | 4.6                  | .02          |                        | 18                            | 558                                     |                                      | 9.7              | 177                           |
| 224               | 27N 50E 12 ADD            | 10 15 64                        | Well   | 39              | 21                     | 267            | 7.0                  | .05          |                        | 18                            | 575                                     |                                      | 16               | 271                           |
| 225               | 27N 50E 13 BDD            | 09 07 63                        | Well   | 54              | 31                     | 214            | 4.7                  | .67          | .39                    | 9.9                           | 541                                     |                                      | 9.2              | 281                           |
| 226               | 27N 51E 18 BC             | 10 07 64                        | Well   | 183             | 59                     | 279            | 7.0                  | .07          |                        | 19                            | 803                                     |                                      | 21               | 568                           |
| 227               | 27N 51E 14 BDC            | 10 07 64                        | Well   | 146             | 61                     | 125            | 6.3                  | .02          |                        | 17                            | 804                                     |                                      | 9.6              | 208                           |
| 228               | 27N 51E 21 BBA            | 10 07 64                        | Well   | 115             | 56                     | 93             | 6.8                  | .01          |                        | 16                            | 688                                     |                                      | 9.0              | 134                           |
| 229               | 27N 51E 29 ABB            | 09 07 63                        | Well   | 71              | 23                     | 617            | 9.2                  | .26          | .03                    | 2.9                           | 588                                     | 20                                   | 16               | 900                           |
| 230               | 27N 52E 17 BB             | 09 09 63                        | Well   |                 |                        | 150            |                      | 2.2          |                        |                               | 463                                     |                                      |                  | 227                           |
| 231               | 27N 53E 06 BCD            | 10 08 64                        | Well   | 222             | 88                     | 540            | 9.4                  | .08          |                        | 19                            | 864                                     |                                      | 44               | 1260                          |
| 232               | 27N 55E 01 AA             | 05 12 64                        | Stream | 59              | 19                     | 65             | 4.2                  | .07          |                        | 8.9                           | 189                                     |                                      | 9.1              | 189                           |
| 233               | 27N 55E 01 AAD            | 04 30 64                        | Well   |                 |                        | 663*           |                      |              |                        |                               | 976                                     |                                      |                  | 912                           |
| 234               | 27N 55E 01 AAD            | 04 30 64                        | Well   | 90              | 23                     | 652            | 4.4                  | .30          |                        | 17                            | 976                                     |                                      | 6.2              | 870                           |
| 235               | 27N 55E 01 AAD            | 05 14 64                        | Well   | 75              | 33                     | 864            | 4.4                  | 3.2          |                        | 25                            | 984                                     |                                      | 6.8              | 900                           |
| 236               | 27N 56E 03 CAB            | 05 05 64                        | Well   | 204             | 95                     | 448            | 8.2                  | .32          |                        | 18                            | 948                                     |                                      | 16               | 1060                          |
| 237               | 27N 56E 05 CDA            | 11 14 63                        | Well   | 120             | 44                     | 495            | 7.2                  | 7.6          | .12                    | 22                            | 758                                     |                                      | 6.2              | 890                           |
| 238               | 27N 56E 06 BBB            | 10 03 62                        | Well   | 71              | 19                     | 495            |                      | 4.0          |                        |                               | 735                                     |                                      | 14               | 680                           |
| 239               | 27N 56E 35 AAB            | 09 20 63                        | Well   | 69              | 24                     | 126            | 3.0                  | .02          |                        | 18                            | 391                                     |                                      | 8.2              | 210                           |
| 240               | 27N 58E 36 BCD            | 09 23 63                        | Well   | 84              | 33                     | 156            | 4.8                  |              |                        | 18                            | 574                                     |                                      | 7.8              | 203                           |
| 241               | 27N 58E 36 CDB            | 09 09 63                        | Well   | 160             | 70                     | 384            | 8.6                  |              |                        | 24                            | 738                                     |                                      | 15               | 875                           |
| 242               | 28N 49E 36 CAA            | 11 06 63                        | Well   |                 |                        | 402            |                      | 2.9          |                        |                               | 490                                     |                                      |                  | 875                           |
| 243               | 28N 49E 36 CBA            | 04 30 64                        | Well   |                 |                        | 408*           |                      |              |                        |                               | 512                                     |                                      |                  | 968                           |
| 244               | 28N 51E 19 ABB            | 09 07 63                        | Well   | 164             | 88                     | 244            | 15                   | .22          | .03                    | 19                            | 758                                     |                                      | 137              | 320                           |
| 245               | 28N 53E 25 DB             | 10 14 47                        | Well   | 105             | 111                    | 897            | 22                   | 3.4          |                        | 14                            | 1130                                    |                                      | 8.0              | 1270                          |
| 246               | 28N 53E 29 DAC            | 10 05 63                        | Well   | 4.6             | 1.1                    | 518            | 1.5                  | .09          | .02                    | 11                            | 1050                                    | 32                                   | 112              | 27                            |
| 247               | 28N 53E 30 DA             | 10 08 64                        | Well   | 30              | 18                     | 260            | 1.5                  | .02          |                        | 12                            | 620                                     |                                      | 8.5              | 180                           |
| 248               | 28N 53E 32 ADB            | 10 24 63                        | Well   |                 |                        | 550            |                      | .30          |                        |                               | 1050                                    | 33                                   |                  | 6                             |
| 249               | 28N 53E 32 GCD            | 10 07 63                        | Well   |                 |                        | 436            |                      |              |                        |                               | 928                                     | 12                                   |                  | 71                            |
| 250               | 28N 54E 35 CAA            | 06 09 63                        | Well   | 185             | 67                     | 193            | 6.4                  | 1.6          | .94                    | 21                            | 576                                     |                                      | 20               | 650                           |
| 251               | 28N 54E 35 CAA            | 09 09 63                        | Well   | 96              | 42                     | 118            | 6.8                  | 2.9          | 11                     | 7.6                           | 408                                     |                                      | 24               | 323                           |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated.

\* Values reported as sodium plus potassium.



1' x 2' Sheet (Cont.)

## of Selected Waters (Cont.)

| Map<br>ref.<br>no. | Nitrate<br>(N) | Fluo-<br>ride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|----------------|----------------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 212                | 1.649          | .7                   | 7.7       |                      | 3710  | 3118                           | 1530                                      | 517   | 4.9                           | USGS                 | 63                     | 110ALVM         | no                            | 64M0049       |
| 213                | .407           | .7                   | 8.0       | 8.3                  | 2090  | 1462                           | 428                                       | 577   | 7.5                           | USGS                 | 64                     | 110ALVM         | no                            | 64M0048       |
| 214                |                |                      | 7.7       | 8.9                  | 1010  |                                | 198                                       | 255   | 4.6                           | USGS                 | 97                     | 110ALVM         | no                            | 63M0045       |
| 215                |                |                      | 7.7       | 8.3                  | 982   |                                | 332                                       | 288   | 2.3                           | USGS                 | 97                     | 110ALVM         | no                            | 63M0046       |
| 216                | .023           | .6                   | 7.9       | 8.3                  | 1170  | 765                            | 194                                       | 309   | 6.0                           | USGS                 | 85                     | 110ALVM         | no                            | 63M0047       |
| 217                | .023           | .6                   | 8.1       | 7.8                  | 1480  | 996                            | 318                                       | 353   | 5.5                           | USGS                 | 105                    | 110ALVM         | no                            | 64M0031       |
| 218                | .407           |                      | 7.8       | 8.3                  | 1470  | 980                            | 248                                       | 438   | 7.1                           | USGS                 | 60                     | 110ALVM         | no                            | 47M0053       |
| 219                |                |                      |           | 8.0                  | 1740  |                                | 280                                       | 841   | 8.9                           | USGS                 | 90                     | 110ALVM         | no                            | 63M0048       |
| 220                | .023           | .4                   | 7.8       | 8.3                  | 988   | 653                            | 383                                       | 312   | 1.8                           | USGS                 | 98                     | 110ALVM         | no                            | 63M0049       |
| 221                | .045           | .6                   | 7.3       | 8.9                  | 1030  | 682                            | 350                                       | 372   | 2.5                           | USGS                 | 86                     | 110ALVM         | no                            | 63M0050       |
| 222                |                |                      |           | 8.0                  | 22.8  | 1310                           | 140                                       | 451   | 9.5                           | USGS                 |                        |                 | no                            | 63M0037       |
| 223                | .294           | 1.0                  | 7.9       |                      | 1170  | 763                            | 131                                       | 458   | 8.9                           | USGS                 | 99                     | 110ALVM         | no                            | 64M0042       |
| 224                | .384           | .8                   | 8.0       | 10.6                 | 1400  | 924                            | 184                                       | 472   | 8.5                           | USGS                 | 96                     | 110ALVM         | no                            | 64M0041       |
| 225                | .023           | .5                   | 7.8       | 13.9                 | 1350  | 872                            | 262                                       | 444   | 5.8                           | USGS                 | 65                     | 110ALVM         | no                            | 63M0051       |
| 226                | 1.333          | .8                   | 8.0       | 8.9                  | 2130  | 1534                           | 700                                       | 659   | 4.6                           | USGS                 | 73                     | 110ALVM         | no                            | 64M0044       |
| 227                | 1.175          | .7                   | 7.8       | 8.9                  | 1470  | 971                            | 616                                       | 659   | 2.2                           | USGS                 | 30                     | 110ALVM         | no                            | 64M0043       |
| 228                | .158           | .6                   | 7.9       | 12.2                 | 1210  | 770                            | 516                                       | 564   | 1.8                           | USGS                 | 20                     | 110ALVM         | no                            | 64M0040       |
| 229                | 2.937          | .6                   | 8.4       | 13.9                 | 2930  | 1889                           | 111                                       | 516   | 25.0                          | USGS                 | 77                     | 110ALVM         | no                            | 63M0038       |
| 230                |                |                      | 8.1       | 11.7                 | 1120  |                                | 289                                       | 380   | 3.8                           | USGS                 | 75                     | 110ALVM         | no                            | 63M0041       |
| 231                | .090           | .7                   | 8.0       | 8.9                  | 3360  | 2609                           | 915                                       | 2610  | 7.8                           | USGS                 |                        | 110ALVM         | no                            | 64M0035       |
| 232                | .045           | .8                   | 7.5       |                      | 706   | 448                            | 224                                       | 155   | 1.9                           | USGS                 |                        |                 | no                            | 64M0033       |
| 233                |                |                      | 8.0       | 8.9                  | 3070  |                                | 308                                       | 800   | 16.0                          | USGS                 | 109                    | 110ALVM         | no                            | 64M0036       |
| 234                | .090           | 1.5                  | 7.8       | 9.5                  | 3000  | 2145                           | 319                                       | 800   | 16.0                          | USGS                 | 36                     | 110ALVM         | no                            | 64M0037       |
| 235                | .045           | 1.6                  | 7.8       | 9.5                  | 3030  | 2198                           | 323                                       | 807   | 16.0                          | USGS                 | 126                    | 110ALVM         | no                            | 64M0028       |
| 236                | .023           | .8                   | 7.5       | 8.3                  | 3050  | 2317                           | 900                                       | 778   | 3.2                           | USGS                 | 90                     | 110ALVM         | no                            | 64M0038       |
| 237                | 1.694          | .9                   | 7.4       | 8.3                  | 2690  | 1968                           | 479                                       | 822   | 9.8                           | USGS                 | 157                    | 110ALVM         | no                            | 83M0042       |
| 238                | .113           | .8                   |           |                      |   | 1646                           | 256                                       | 603   | 13.0                          | USGS                 | 115                    | 110ALVM         | no                            | 62M0017       |
| 239                | .090           | .7                   | 7.8       |                      | 985   | 652                            | 271                                       | 321   | 3.3                           | USGS                 | 58                     | 110ALVM         | no                            | 63M0040       |
| 240                | .045           | .7                   | 7.9       |                      | 1210  | 790                            | 344                                       | 471   | 3.7                           | USGS                 | 80                     | 110ALVM         | no                            | 63M0027       |
| 241                | .023           | .5                   | 7.7       | 9.5                  | 2550  | 1901                           | 688                                       | 605   | 6.4                           | USGS                 | 118                    | 110ALVM         | no                            | 63M0028       |
| 242                |                |                      | 7.4       | 8.9                  | 2360  |                                | 416                                       | 402   | 8.6                           | USGS                 | 68                     | 110ALVM         | no                            | 63M0024       |
| 243                |                |                      | 7.8       | 7.8                  | 2520  |                                | 540                                       | 420   | 7.6                           | USGS                 | 55                     | 110ALVM         | no                            | 64M0027       |
| 244                | 46.989         | .5                   | 8.0       | 8.3                  | 2330  | 1409                           | 769                                       | 622   | 3.8                           | USGS                 | 18                     | 110ALVM         | no                            | 63M0020       |
| 245                | .113           | .6                   | 7.8       | 8.3                  | 3750  | 2788                           | 718                                       | 927   | 11.0                          | USGS                 | 90                     | 110CLVM         | no                            | 47M0048       |
| 246                | .452           | 5.4                  | 8.5       | 11.1                 | 1990  | 1230                           | 16  | 915   | 56.0                          | USGS                 | 82                     | 110ALVM         | no                            | 63M0029       |
| 247                | .587           | 1.0                  | 8.1       |                      | 1280  | 815                            | 142                                       | 509   | 9.5                           | USGS                 | 106                    | 112DRFT         | no                            | 64M0032       |
| 248                |                |                      | 8.4       | 9.5                  | 2220  |                                | 31  | 916   | 43.0                          | USGS                 | 88                     | 110ALVM         | no                            | 63M0031       |
| 249                |                |                      | 8.3       | 10.6                 | 1750  |                                | 12  | 781   | 55.0                          | USGS                 | 100                    | 110ALVM         | no                            | 63M0030       |
| 250                | .226           | .6                   | 7.5       |                      | 1990  | 1430                           | 739                                       | 472   | 3.1                           | USGS                 | 30                     | 110ALVM         | no                            | 63M0032       |
| 251                |                | .5                   | 7.4       | 11.7                 | 1280  | 822                            | 434                                       | 335   | 2.5                           | USGS                 | 78                     | 110ALVM         | no                            | 63M0033       |

## WOLF POINT

## Chemical Analyses

| Map<br>ref.<br>(a) | Location |     |     |       | Collection<br>date |     |    | Source | Calcium<br>(Ca) | Magne-<br>sium<br>(Mg) | Sodium<br>(Na) | Potas-<br>sium<br>(K) | Iron<br>(Fe) | Manga-<br>nese<br>(Mn) | Silica<br>(SiO <sub>2</sub> ) | Bicar-<br>bonate<br>(HCO <sub>3</sub> ) | Car-<br>bonate<br>(CO <sub>3</sub> ) | Chloride<br>(Cl) | Sulfate<br>(SO <sub>4</sub> ) |
|--------------------|----------|-----|-----|-------|--------------------|-----|----|--------|-----------------|------------------------|----------------|-----------------------|--------------|------------------------|-------------------------------|---|--------------------------------------|------------------|-------------------------------|
|                    | T        | H   | Sec | Tract | Mo                 | Day | Yr |        |                 |                        |                |                       |              |                        |                               |   |                                      |                  |                               |
| 252                | 28N      | 55E | 21  | ACC   | 09                 | 10  | 63 | Stream |                 |                        | 341            |                       |              |                        |                               | 628                                     |                                      |                  | 474                           |
| 253                | 28N      | 55E | 32  | AC    | 09                 | 09  | 63 | Well   |                 |                        | 469            |                       |              |                        |                               | 997                                     |                                      |                  | 1380                          |
| 254                | 28N      | 55E | 33  | DAD   | 10                 | 13  | 47 | Well   | 229             | 103                    | 467            | 14                    | 3.6          |                        | 12                            | 1190                                    |                                      | 26               | 971                           |
| 255                | 28N      | 55E | 77  | BD    | 09                 | 10  | 63 | Well   | 56              | 24                     | 61             | 31                    | .05          | .17                    | 19                            | 385                                     |                                      | 2.0              | 60                            |
| 256                | 28N      | 55E | 79  | CD    | 10                 | 12  | 64 | Well   | 153             | 71                     | 519            | 7.6                   | .02          |                        | 22                            | 770                                     |                                      | 8.7              | 1110                          |
| 257                | 28N      | 57E | 25  | ACA   | 10                 | 12  | 64 | Well   | 75              | 24                     | 438            | 10                    | 16           |                        | 23                            | 784                                     |                                      | 5.7              | 548                           |
| 258                | 28N      | 57E | 32  | DD    | 10                 | 13  | 47 | Well   | 158             | 59                     | 13             | 10                    | 10           |                        | 21                            | 351                                     |                                      | 57               | 293                           |
| 259                | 31N      | 49E | 34  | CB    | 05                 | 16  | 56 | Well   | 1600            | 280                    | 29000*         |                       |              |                        |                               | 259                                     |                                      | 45000            | 3400                          |

Note: All chemical data are given in milligrams per liter (mg/l) unless otherwise stated

\* Values reported as sodium plus potassium

## 1' x 2' Sheet (Cont.)

## of Selected Waters (Cont.)

| Map<br>ref.<br>no. | Nitrate<br>(NI) | Fluoride<br>(F) | Lab<br>pH | Field<br>Temp.<br>C° | Lab<br>specific<br>conductance<br>(µmho/cm) | Dissolved<br>solids<br>(calc.) | Total<br>hardness<br>as CaCO <sub>3</sub> | Total<br>alkalinity<br>as CaCO <sub>3</sub> | Sodium<br>adsorption<br>ratio | Collecting<br>agency | Well<br>depth<br>(ft.) | Aquifer<br>code | Trace<br>elements<br>analyzed | Lab<br>number |
|--------------------|-----------------|-----------------|-----------|----------------------|---|--------------------------------|---|---|-------------------------------|----------------------|------------------------|-----------------|-------------------------------|---------------|
| 252                |                 |                 | 7.7       | 25.0                 | 1820  |                                | 241                                       | 515   | 9.6                           | USGS                 |                        |                 | no                            | 63M0039       |
| 253                |                 |                 | 7.4       |                      | 3490  |                                | 1200                                      | 818   | 5.9                           | USGS                 | 100                    | 110ALVM         | no                            | 63M0034       |
| 254                | 1.401           |                 | 7.1       | 7.2                  | 3230  | 2413                           | 995                                       | 976   | 6.4                           | USGS                 | 15                     | 110ALVM         | no                            | 47M0049       |
| 255                | 520             | .3              | 7.4       | 9.5                  | 689   | 418                            | 244                                       | 316   | 1.7                           | USGS                 | 19                     | 110ALVM         | no                            | 63M0035       |
| 256                | 4.066           | 1.0             | 8.0       | 7.8                  | 3000  | 2276                           | 672                                       | 632   | 8.7                           | USGS                 | 80                     | 110ALVM         | no                            | 64M0030       |
| 257                | 249             | 1.0             | 8.0       | 8.3                  | 2160  | 1511                           | 285                                       | 643   | 11.0                          | USGS                 | 147                    | 112DRFT         | no                            | 64M0029       |
| 258                | 1.355           | .1              | 8.1       | 7.8                  | 1240  | 786                            | 637                                       | 288   | .2                            | USGS                 | 19                     | 110ALVM         | no                            | 47M0050       |
| 259                |                 |                 | 6.2       |                      |   |                                | 5150                                      | 212   |                               | Unknown              |                        | 337MSNC         | no                            | 56M0017       |



AN ALGAL SURVEY OF SURFACE WATERS IN EASTERN MONTANA SUSPECTED TO BE  
INFLUENCED BY SALINE SEEP, WITH SPECIAL EMPHASIS ON SALINITY INDICATORS  
AND POTENTIALLY TOXIC SPECIES

By

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# ABSTRACT

One hundred samples of benthic algae were collected from surface waters in eastern Montana suspected of being influenced by dryland salinity. The class Bacillariophyceae (diatoms) was the most abundant and diverse group, dominating 62 percent of the samples and represented by 291 distinct taxa in 38 genera. Diatom species diversity was inversely correlated with specific conductance and the relationship was significant to the 1 percent level of probability. Several taxa with documented brackish water affinities were among the more common diatoms encountered. The spectrum of salinity values for the waters surveyed (332-42519 mg/l TDS) eclipsed the maximum and minimum tolerances for many of the diatom taxa described. Although blue-green algae comprised a relatively minor portion of the total flora, potentially toxic taxa were present in 25 of the 100 collections. A determination of the immediate threat to livestock from consumption of waters containing these algae and documentation of possible toxic algae blooms in stockponds across eastern Montana could not be accomplished given the methods employed in this survey. Proposals are made for educating ranchers on the potential toxic algae problem and for establishing a biological salinity impact monitoring network.



## INTRODUCTION

This report describes the attached or benthic algae (phycoperiphyton) found at 100 different sites on a variety of surface waters in eastern Montana suspected of being influenced by dryland salinity. Most of the waters sampled were small first and second-order streams, however they ranged in size from tiny spring seeps to the Missouri River at the Fred Robinson Bridge. An assessment is made of the susceptibility of livestock and wildlife to potentially toxic blue-green algae encountered in these waters. Diatom taxa useful as salinity indicators are identified and their respective salinity tolerances are described.

Salinity in surface and ground waters is a well-known and long-standing problem in eastern Montana. In recent years salinity levels in certain waters have been increasing (5, 15). It is believed that a major contributor to this growing problem is the process called saline seep (4, 9, 20).

Salinization of surface waters used by livestock has been implicated in recent reports of cattle deaths near stock ponds in saline seep areas (29). These waters, in addition to the high concentrations and array of dissolved minerals and nutrients they are known to contain, may harbor strains of blue-green algae that are lethal to livestock and wildlife following water blooms (7, 19, 22, 31). Species containing suspected toxic strains are known to occur in a broad band across the northern United States and southern Canada, and may be found in waters having a total dissolved solids content of up to 20,000 mg/l (25, 26).

The primary objective of this survey was originally to determine whether potentially toxic blue-green algae regularly form water blooms in reservoirs frequented by livestock and, if they do, what factors contribute to such blooms. Their occurrence in waters affected by irrigation or dryland salinity may present an additional and unsuspected operating hazard to eastern Montana livestock producers. Small streams in eastern Montana are often intermittent and cannot be relied on as a source of stock water the year round. Impounded in reservoirs, water is available for all of the ice-free season. Most potentially toxic species of blue-green algae are planktonic and realize their full lethality only following a bloom in the open, standing water of lakes and reservoirs (7). It was therefore proposed initially that at least 50 of the 100 algae samples be taken from the plankton of stock-watering reservoirs (3). Unfortunately, due to time and access limitations, only a handful of samples (eight) were collected from such waters; all were taken from the periphyton and none were taken from the plankton. Consequently, the results from this phase of the survey are inconclusive.

However, another useful purpose has been served by completion of this survey. Algae, particularly diatoms, are useful as monitors of water quality. Because they directly utilize dissolved minerals and nutrients in their metabolic processes, they are orders of magnitude more sensitive to changes in the ambient concentrations of these elements than either invertebrates or fish. They reproduce much faster than invertebrates or fish, hence their

response is more immediate. They are also less mobile and less able to evade the consequences of pollution. As biological organisms they integrate the effects of all the various physical and chemical factors to which they are exposed. The environmental requirements and pollution tolerance of many freshwater diatoms have been documented (17). The absence, or when present the relative abundance, of certain species and varieties may indicate specific water quality conditions.

The waters sampled in this survey vary in salinity<sup>1</sup> from levels typical of freshwater to and exceeding those of sea water. Given such a broad range in total ionic load, the correlation of dissolved solids and electrical conductivities of these waters with the relative abundances of their more common diatom taxa will make it possible to identify certain species and varieties that may serve as salinity indicators. Such taxa may be used in lieu of or in concert with physicochemical analyses as markers of salinization in surface waters of eastern Montana.

One incidental benefit will accrue from completion of this survey. It will enhance our knowledge of the distribution of diatoms in Montana and will represent a significant contribution to a statewide diatom flora now in initial stages of preparation.

#### METHODS

One hundred samples of benthic (attached) algae were collected from 100 different sites in eastern Montana by personnel of the Water Quality Bureau (Montana Department of Health and Environmental Sciences), the Montana Bureau of Mines and Geology, and by this writer. Dates and locations of algae samples are listed in Appendix A. Collectors were instructed to sample macroscopic algae in proportion to their abundance at a given site and to scrape microscopic algae from natural substrates roughly in proportion to the importance of each substrate (rocks, mud, etc.) at each site, thus giving a representative composite sample (2). Substrates were scraped with a carefully cleaned scalpel or pocket knife. Samples were labelled, preserved with Lugol's (IKI) solution and shipped to Helena for microscopic analysis. In most cases a water sample was collected on the same date as the algae sample. Water samples were analyzed for dissolved solids and electrical conductivity at the Department of Health laboratory in Helena. In some cases, field conductivity measurements accompanied the algae sample.

Algae samples were analyzed microscopically as follows. Macroscopic filamentous algae were placed on a glass slide roughly in proportion to their abundance in the sample. The sample was then agitated and an aliquot of suspended microscopic algae was pipetted onto the same slide. A coverslip was added and this "wet mount" was scanned under low magnification (100X) to estimate the relative importance of algal taxa in the sample. (A magnification of 400X was used for critical identification of taxa.) Whenever possible the more common taxa were assigned an order of rank. At this stage diatoms were

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<sup>1</sup>The salinity of an inland water may be regarded as the concentration of all the ionic constituents present, according to Hutchinson (13).

considered as a group and all other algae were identified and ranked at the level of genus.

The remainder of the sample was then "cleaned" in a mixture of concentrated sulfuric acid and potassium dichromate. This process effectively oxidizes all the organic contents of the ornamented silica diatom frustules, which is necessary for accurate identification and enumeration. Following repeated decantation and dilution with distilled water, the cleaned sample was thoroughly mixed and a few drops pipetted onto a coverslip. When all moisture on the coverslip had evaporated, a permanent mount was prepared by inverting the coverslip on a heated glass slide containing two drops of a high refractive index mounting medium. The slide was labelled and then stored to await detailed diatom analysis.

The permanent diatom slide was scanned, first under low dry (100X) and then under oil immersion (1,000X), and a list was prepared of those taxa that could be found within a reasonable length of time, usually 30 minutes. Diatoms were identified to species, and to variety and form where appropriate and possible using available keys (10, 23, 24). Once a diatom flora was prepared for the site, the slide was examined under oil immersion beginning at one edge of the coverslip until at least 100 frustules were identified and enumerated. Work by McIntire and Overton (18) indicated that 100 is about the smallest sample size that one can use and still yield diversity and relative abundance values reasonably representative of the diatom association as a whole. Percent relative abundance values were calculated for each taxon and two diversity indexes were calculated for each sample:

Margalef's index (8)

$$D = \frac{S - 1}{\ln N}$$

and Simpson's index (28)

$$SD = 1 - \sum_{i=1}^S \left( \frac{n_i}{N} \right)^2$$

where S is the number of species, N is the total number of individuals in the sample, and  $n_i$  is the number of individuals in the i-th species. Percent relative abundance and frequency or occurrence were calculated for each taxon over all 100 samples. These two statistics were then multiplied giving an abundance-occurrence index, which is directly related to the chances of finding that particular taxon at any one of the 100 sites (1).

At those sites where water samples were taken, species relative abundance and diversity statistics were correlated with specific conductance (SC) values. Salinity optima and ranges of the more common taxa were expressed in terms of total dissolved solids (TDS). Only these two estimators of ionic load were selected for comparison because it is unlikely, over the wide range of salinity encountered, that any other water quality parameters would be as effective at determining species diversity or relative abundance. Temperature and nutrients, considered initially (3) because they are known to be significant

in promoting blooms of blue-green algae (14), were not used in this analysis because (i) the plankton community was not sampled, (ii) no known water blooms were sampled, (iii) blue-green algae were only a small fraction of the entire flora, and (iv) spot temperature measurements could not have been used with confidence because of temperature's tendency to undergo marked diurnal fluctuation.

## RESULTS

### Non-diatom Algae

Non-diatom algae in six major groups and 57 genera were encountered in the periphyton at the 100 localities sampled. A complete list of genera is in Appendix B. Because the plankton community was not sampled, the great majority of these genera are attached forms, however a few incidental plankters were encountered.

Table 1 gives the rank frequency of the most prominent non-diatom algal genera. As a group the green algae were the most important among the non-diatoms, and Cladophora was the most abundant non-diatom genus. Following the greens, the blue-greens, chrysophytes, euglenoids, red algae, and cryptomonads were the other non-diatom groups in descending order of abundance. Besides Cladophora, other significant non-diatom genera were Rhizoclonium and Spirogyra among the greens, and Oscillatoria and Phormidium among the blue-greens.

The freshwater blue-green algae suspected of producing strains toxic to wildlife or livestock are listed in Table 2. Six of the genera included on this list (Anabaena, Aphanizomenon, Gomphosphaeria, Lyngbya, Nodularia, and Nostoc) were encountered in 25 of the 100 samples (see Appendix A). Four of these genera--Anabaena, Aphanizomenon, Lyngbya, and Nostoc--were important enough to be ranked in Table 1. None was present in the massive concentrations typical of a bloom, however, verification of the presence or absence of a bloom cannot be accomplished without sampling the plankton community or without some record of the collector's visual observations. Nevertheless, potentially toxic blue greens apparently comprised a relatively minor portion of the overall algal flora in the waters sampled.

Only one suspected toxic blue-green alga--Aphanizomenon flos-aquae--was identified conclusively to species. A. flos-aquae was found in two of the eight standing waters sampled (Appendix A). It ranked second both times although the colonies were fragmented and appeared to be in a senescent condition. Samples at these locations may have been taken shortly after the peak of a water bloom when many colonies of this ordinarily planktonic species had sunk to the bottom. Of the species thought to produce toxic strains, there is less evidence to implicate A. flos-aquae than any of the others; it is not known with certainty whether this taxon can be toxic (7).

### The Diatom Flora

Diatoms representing 38 genera in 291 distinct taxa were identified in the 100 periphyton collections. Many additional taxa were recognized but could not be identified using available keys. About 60 percent of these taxa were the same as those reported by Hustedt from a number of saline lakes in

Europe (11, 12). As a group, diatoms ranked among the first three most important algae in 96 of the 100 samples; diatoms ranked first 62 times, second 22 times, and third 12 times. Overall, it was the most abundant and diverse group of algae in the waters that were sampled. (See Table 1 and Appendix B for abundance and diversity of other algae groups.)

Percent relative abundance, percent frequency of occurrence, and the abundance-occurrence index for each of the 291 diatom taxa are listed in Appendix C. Relative abundance values are based on a total count of 15,185 individual frustules (cells); frequency values are based on a total of 100 samples. Achnanthes minutissima had the highest relative abundance value, contributing slightly less than 10 percent (9.53 percent) of all the frustules counted. Nitzschia palea was the most frequently occurring diatom, found in 90 of the 100 samples. The maximum possible abundance-occurrence value would be 100 percent relative abundance times 100 percent frequency equals 10,000. N. palea ranked first in abundance-occurrence (607.60) and A. minutissima ranked second (409.79). In all, only 18 taxa had abundance-occurrence values greater than 50. These taxa are given in Table 3. They may be considered the most common taxa in waters subject to saline seep in eastern Montana. Except for those with a broad ecological amplitude, they are also the ones most amenable for comparison with water quality parameters and the ones most useful as indicators of surface water salinization.

#### Salinity and the Diatom Community

Specific conductance (SC) measurements, either field or laboratory, were available for 94 of the 100 waters sampled. Total dissolved solids (TDS) measurements were available for 57 of those same 94 waters. Because water-use criteria for livestock, irrigation, and human consumption are more commonly expressed in TDS rather than SC, it was desirable to convert SC to TDS in those instances where TDS values were not available and SC values were. Assuming a linear relationship exists between the two parameters a regression equation was calculated using the 57 pair of measurements:

$$\text{TDS} = 0.85 \text{ SC} + 19$$

The remaining SC values were then entered individually and the equation solved for TDS.

Margalef (D) and Simpson (SD) diversity indexes were calculated for the 97 diatom associations that were enumerable (diatoms in three collections were too sparse to count). Values for these indexes, along with measured SC values and measured and calculated TDS values, are listed in Appendix D.

Simple correlation coefficients (r) were then computed between SC and each of the two diversity indexes for the 91 sites having both diversity and salinity data. The following correlation coefficients were obtained:

$$r_{\text{DSC}} = -0.451$$

$$r_{\text{SDSC}} = -0.468$$

Both of these values are significant to the 1 percent level of probability, indicating there is a significant inverse relationship between salinity and diatom diversity in the waters sampled.

Simple correlation coefficients between species relative abundance and SC values were also calculated for the 18 most common diatom taxa listed in Table 3. None of the coefficients obtained (Table 4) proved to be significant, even to the 5 percent level of probability. Two factors might account for this: (i) the relationship may not be linear, and/or (ii) other parameters may be more important in determining relative abundance over the range of salinity values for a given species.

To test the former hypothesis, the percent relative abundance values of two species were plotted as a function of SC. Figure 1 shows that within the salinity ranges of these two species, the relationship is more bell-shaped than linear, with an optimum lying somewhere between the two extremes. Consequently, a significant linear relationship could be expected only on one or both sides of the optimum. Over the entire salinity range, any positive and negative coefficients on either side of the optimum could be expected to cancel one another, thus at least partly explaining the low  $r$  values in Table 4.

Maximum, minimum, and mean TDS values for 25 of the more frequently occurring taxa are also listed in Table 4. Extreme TDS values well beyond the normal range of a taxon and represented by only one cell were eliminated from consideration to discount any possible chance occurrence. The maximum and minimum values therefore delineate the normal salinity range for each taxon in the waters that were sampled. The mean TDS value is intended as an estimator of the optimum salinity level for each taxon.

#### DISCUSSION

Maximum allowable salinity levels in water depend on what the water is to be used for. For human consumption salinity should not exceed 500 mg/l TDS (6). For irrigation it should not exceed 5,000 mg/l TDS (6), although detrimental effects may begin at around 1,500 mg/l TDS (30). For stock water for beef cattle it should not exceed 10,000 mg/l TDS (6), although water in excess of 4,000 mg/l TDS may be unsatisfactory (21).

The value of a diatom as a water quality indicator is primarily a function of its ecological amplitude. A taxon found over a broad range of salinity values is not as useful for this purpose as one with a relatively narrow tolerance. To illustrate, the mean and extreme salinity levels of the taxa listed in Table 4 are superimposed over the maximum permissible levels for the water uses discussed above (Figure 2). In making this comparison, a number of points become evident. First, three species are relatively valueless as indicators because of their broad salinity range, which matches the range of TDS for all 91 samples. Second, none of the taxa can be used affirmatively as an indicator of water suitable for human consumption. The most salinity intolerant form--*Nitzschia dissipata*--indicates water that is suitable for livestock and most irrigation applications. At the other end of the scale,

Amphora coffeiformis is indicative of water that is unsuitable for drinking, most irrigation, and probably stock watering as well. In between these two taxa are 23 others with varying salinity ranges and means.

Kolbe (16) devised a halobion spectrum for circumscribing salinity preferences of diatom taxa. Although it was originally intended to apply only to chlorides, it is generally understood to reflect total salt concentration in its present usage. Kolbe's halobion spectrum is presented in Table 5.

Lowe (17), Patrick and Reimer (23, 24), and others have summarized the salinity preferences of a great many diatom taxa from a large number of published reports. Reported salinity preferences for the 25 taxa in Table 4 and Figure 2 are given in Table 6. These descriptions are generally in agreement with salinity ranges and means associated with these taxa in eastern Montana.

The wealth of published information on salt preferences for most common freshwater diatoms offers an excellent opportunity for devising a biological system for rating salinity effects in surface waters. To begin with, the spectral designations in Table 5 could be scaled as follows:

|                    |     |
|--------------------|-----|
| oligohalobous      | 1.0 |
| beta-mesohalobous  | 2.0 |
| alpha-mesohalobous | 3.0 |
| euhalobous         | 4.0 |
| polyhalobous       | 5.0 |

Next, a diatom sample is collected from a water in question. The sample is counted and percent relative abundance values are determined for all taxa. Then each taxon is assigned to one of the above spectral designations and weighted according to its relative abundance, which is multiplied by the scaled value of that designation. These products are added and then divided by 100, which puts the final value within range of the scale described above. A rating of less than 2.0 would indicate fresh (oligohalobous) water with TDS less than 500 mg/l. A rating between 2 and 3 would indicate brackish (beta-mesohalobous) water with TDS between 500 and 10,000, and so on.

To further illustrate how this rating system might work, an example is taken from the present survey. Sample 0211A had six species distributed as follows:

|                                |                    |
|--------------------------------|--------------------|
| <u>Navicula pygmaea</u>        | 43.9% x 2.0 = 87.8 |
| <u>N. cincta var. rostrata</u> | 10.7 x 2.0 = 21.4  |
| <u>N. protracta</u>            | 5.0 x 2.0 = 10.0   |
| <u>N. odiosa</u>               | 0.8 x 2.0 = 1.6    |
| <u>Amphora coffeiformis</u>    | 38.8 x 3.0 = 116.4 |
| <u>Navicula tenelloides</u>    | 0.8 x 3.0 = 2.4    |
| 100.0                          | 239.6              |

The first four listed taxa are considered beta-mesohalobous and should be scaled with a value of 2.0 as indicated. The last two taxa may be considered alpha-mesohalobous and should be scaled with a value of 3.0. The sum of products divided by 100 gives a biological salinity rating of 2.4 or somewhere about midway between 500 and 10,000 mg/l TDS. The TDS value at this site, estimated from SC, was 6,394 mg/l.

The value of a system such as this, however, is not its ability to estimate TDS. Even assuming it is reasonably accurate at doing so, it would be much simpler to measure TDS directly. Its real value lies in its numerical representation of the collective response of a significant portion of the biological community to a given category of stress applied over a period of time. After refinement and testing, such a scaling system could be used for monitoring the biological response to surface water salinization in eastern Montana.

### CONCLUSIONS AND RECOMMENDATIONS

This survey has established the potential of algal toxicity to livestock and wildlife in one quarter of the waters sampled. However, for a variety of reasons repeated below, no statement can be made regarding the immediate danger to such animals posed by possibly toxic algae consumed in waters subject to saline seep in eastern Montana:

1. Most of the samples were collected in the spring of the year, a time when blue-green algae do not reach their full growth potential.
2. Water blooms, responsible for most cases of algal toxicity, ordinarily develop only in the plankton of standing waters. Such waters (reservoirs) are also the most dependable water supplies for livestock and wildlife. Standing waters accounted for only 8 of the 100 collections and the plankton community was not sampled in any of these.
3. Taxonomic identification does not confirm the presence or absence of a toxic algae problem. Different strains of the same species, undistinguishable under the microscope, can form blooms that are deadly or merely obnoxious.
4. About 85 percent of the samples were collected by individuals unfamiliar with algal growth forms and sampling techniques. Although unlikely, these individuals may have overlooked concentrations or blooms or potentially toxic algae.

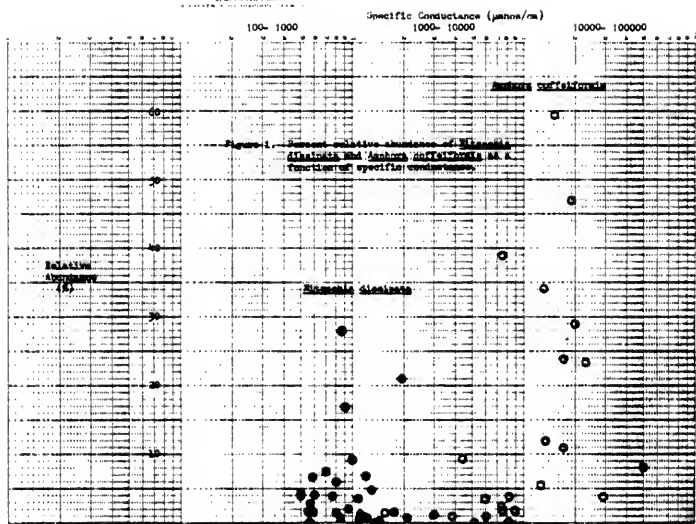
Nevertheless, the potential is significant enough to warrant an effort to educate livestock producers of the problem. Ranchers should be warned to refrain from watering their livestock with waters having a green "pea soup" appearance, which may develop from late summer into autumn. Ranchers, county extension agents, and other local agricultural people should be advised to send samples of such waters to the Water Quality Bureau for analysis. If the sample contains a potentially toxic species in concentrations typical of a bloom, the water should be tested in laboratory animals following standard clinical procedures. Ranchers should also be advised to submit for analysis



samples of any waters suspected of causing death or sickness in livestock regardless of the water's appearance. All samples should be submitted as soon as possible after toxic effects become apparent or a bloom appears. A pint or quart jar of water scooped from near shore would be a sufficient sample for diagnosis of a toxic algae problem.

A statistically significant relationship exists between high salinity levels and low biological diversity in the waters sampled. More subtle changes in species relative abundance and gradual replacement of less tolerant species also accompanied salinization. The diatom component of the periphyton community may prove to be a sensitive monitor of the biological effects of salinity increases in surface waters of eastern Montana. Most of the species encountered are widely distributed and their salinity preferences have been well documented. Enough information on the autecology of various species exists for constructing a salinity impact rating system based on salinity preferences and species relative abundance.

This consultant proposes establishing a biological salinity impact monitoring network composed of 10 to 20 stations on a few key waterways in eastern Montana. Existing water quality monitoring stations of the USGS or Water Quality Bureau could be adopted and new stations set up where there is significant evidence of increasing salinization. In addition to the standard physical and chemical water-quality parameters, the network would emphasize periodic measurements of diatom community response, including species diversity, species relative abundance, and periphyton biomass accrual on artificial substrates.



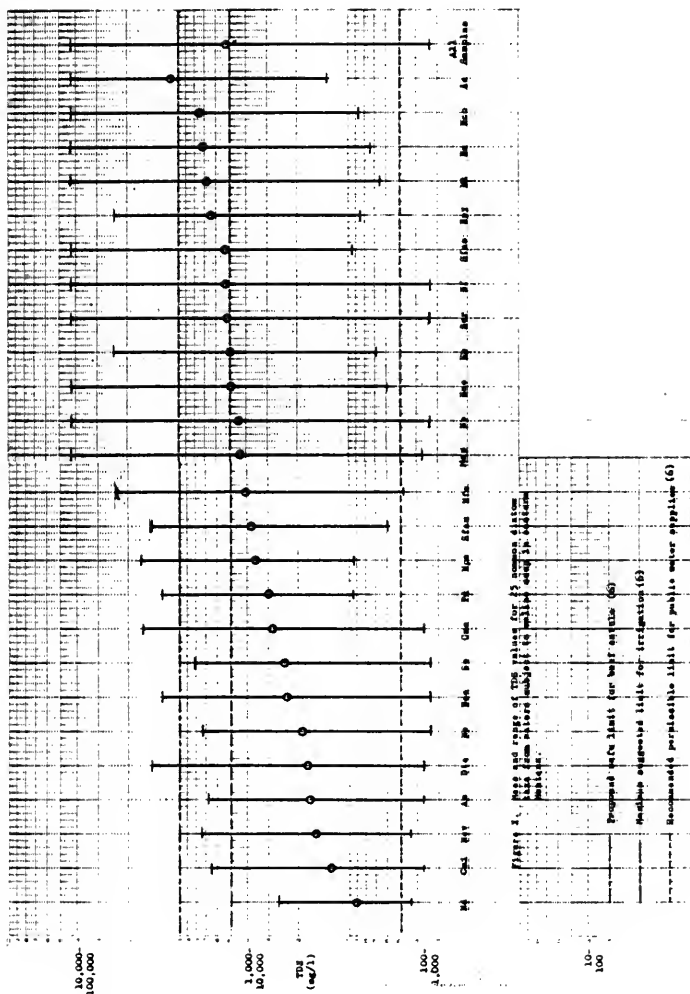


Figure 1. Mass and range of TDS values for 25 common cations. The mass and range of TDS values for each cation are shown in the table below.

|   |     |
|---|-----|
| Proposed maximum limit for half cation (5)                | 100 |
| Maximum suggested limit for irrigation (5)                | 100 |
| Recommended permissible limit for public water supply (5) | 100 |



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Appendix A. Sample locations and dates.

| Number | Site  | Date     | Reference | Site  | Date    |
|--------|---|----------|-----------|---|---------|
| 0019A  | Rte Spring Creek, N. of Lewistown, 15N.18E.50A  | 9-12-76  | 0200A     | Carle Cr., Stillwater Co., 1N.23E.05CB                | 6-20-76 |
| 0019A  | N. of Lewistown, N. of Lewistown  | 9-13-76  | 0201A     | N. of P. Pivotal Cr., Stillwater Co., 2N.25E.19CA8    | 6-20-76 |
| 0019A  | American Pl., N. of Lewistown on gravel rd., 07N.18E.51H                                    | 9-13-76  | 0202A     | Chouteau Co., 2N.28E.36                               | 8-7-76  |
| 0019A  | Platelline Cr., # PAC 500, 14N.30E.33CB   | 9-9-76   | 0203A     | Chouteau Co., 21N.12E.36WCD                           | 8-7-76  |
| 0020A  | Justine Cr., # Highway 87   | 10-16-76 | 0204A     | Chouteau Co., 23N.8E.19WCD                            | 8-7-76  |
| 0021A  | Justine Cr., # Highway 87   | 10-17-76 | 0205A     | Crawford Ranch, Chouteau Co., 23N.6E.18               | 8-7-76  |
| 0022A  | Arrow Cr., # Highway 230, 19N.12E.13BA  | 10-16-76 | 0206A     | Clear Cr., Blaine Co., Verduynen property, 31N.18E.20 | 7-8-76  |
| 0023A  | Waters Spring Cr., # Highway 235, 17N.17E.17AD  | 10-16-76 | 0207A     | Bullwacker Coulee, Blaine Co., 26N.19E.35             | 7-9-76  |
| 0024A  | Cottonwood Cr., near Lewistown & Highway 87, 15N.17E.22NA                                   | 10-16-76 | 0208A     | Reservoir, Blaine Co., 30N.21E.31C                    | 7-20-76 |
| 0025A  | Judith N., Riddle Pk., U. of Ulton 3 mi. 14N.12E.15HD                                       | 10-17-76 | 0209A     | Saline seep area, Valley Co., 23N.37E.12BA            | 7-23-76 |
| 0027A  | Judith N., at south near Highway 236, 23N.16E.25BA  | 11-7-76  | 0210A     | Pond in seep area, Phillips Co., 27N.31E.20           | 7-25-76 |
| 0028A  | Missouri R., # PM Ferry, 23N.16E.25BA   | 11-7-76  | 0211A     | Phillips Co., 24N.24E.22                              | 7-27-76 |
| 0029A  | Little Caroline Cr., Gravel N. near Lewistown, 11-7-76                                      | 11-7-76  | 0212A     | Valley Co., 25N.36E.38BD                              | 7-28-76 |
| 0030A  | Russellwell Basin, Wheatland Co., 10N.18E.09AA  | 11-8-76  | 0213A     | Natural saline seep, Valley Co., 24N.38E.14AD         | 7-28-76 |
| 0031A  | Judith N., between Hobson & Ulton (Ney 239), Judith Basin Co., 14N.16E.10BA                 | 11-7-76  | 0214A     | Whitewater Cr. under bridge, Phillips Co., 36N.30E.9  | 7-21-76 |
| 0032A  | Painted Hole Cr., SE of Lavina near north (1 mi. S., 5 mi. N.) Colson Valley Co., 23E.6N.15 | 11-21-76 | 0215A     | Rock Cr., Valley Co., 35N.36E.33CD                    | 8-25-76 |
| 0033A  | Rig Rip Cr., So. of Ten Not (21 farmhouses), 11-21-76                                       | 11-21-76 | 0216A     | Reservoir, Cascade Co., 19N.02E.08BD                  | 8-28-76 |
| 0034A  | Wheatland Co., 12N.8E.25  | 11-21-76 | 0217A     | Pond, Teton Co., 23N.34.33BB                          | 9-10-76 |
| 0035A  | Russellwell N., # Nelstone  | 11-20-76 | 0218A     | Fergus Co., 15N.22E.09B                               | 9-10-76 |
| 0036A  | Wolf Cr., # Denton  | 9-26-75  | 0219A     | Crown Butte Cr., Cascade Co., 20N.02E.25CA            | 9-13-76 |
| 0037A  | Judith N., # Ulton  | 9-26-75  | 0220A     | Petroleum Co., 13N.26E.32CD                           | 9-13-76 |
| 0038A  | Seep 1 mi. W. of Judith in big mead, Fergus Co., 22N.16E.10CC                               | 9-24-75  | 0221A     | Fergus Co., 19N.22E.03BD                              | 9-13-76 |
| 0039A  | Ackley Lake, SW of Hobson   | 9-26-75  | 0222A     | Cascade Co., 17N.02E.17C                              | 9-28-76 |
| 0040A  | Arrow Cr., # Mouth, 15E.23H   | 9-24-75  |           |   |         |
| 0041A  | Sage Cr., Judith Basin Co., 16N.10E.0CC   | 9-24-75  |           |   |         |
| 0042A  | Wolf Cr., Highway 200 near Sand Springs   | 3-17-76  |           |   |         |
| 0043A  | Cow Cr., # Hwy 13 near Circle   | 3-16-76  |           |   |         |
| 0044A  | Rig Dry Cr., # Hwy 200, Jordan  | 3-17-76  |           |   |         |
| 0045A  | Redwater Cr., # Circle  | 3-16-76  |           |   |         |
| 0046A  | Yellowstone Co., R. of Acton near power line 03N.24E.11CC                                   | 4-9-76   |           |   |         |
| 0047A  | Yellowstone Co., 03N.24E.35CC   | 4-9-76   |           |   |         |
| 0048A  | Teton R., N. of P. Pivotal Cr., 23N.16E.25BA  | 4-23-76  |           |   |         |
| 0049A  | Marian R., # confluence w/ Teton R., 30N.21E.31C  | 4-23-76  |           |   |         |
| 0050A  | Rig Sandy Cr., 3 mi. E. of Rig Sandy, S. off Hwy on gravel rd., 3 mi.                       | 4-23-76  |           |   |         |
| 0051A  | Eliz R., 13 mi. E. of Havre & Loban under bridge  | 4-24-76  |           |   |         |
| 0052A  | Therrell Cr., So. of Harlan on Hwy 376  | 4-24-76  |           |   |         |
| 0053A  | Pylan Cr., # 4 mi. Corner E. of Rapelin, 07N.70E.44A  | 4-21-76  |           |   |         |
| 0054A  | Seep by Windmill N. of NW tracks, Stillwater Co., 02N.21E.11DD                              | 4-21-76  |           |   |         |
| 0055A  | Seep 3 mi. N. of farm buildings, Stillwater Co., 01N.21E.02CC                               | 4-22-76  |           |   |         |
| 0056A  | Lake Cr. behind Wilson house, Stillwater Co., 03N.21E.18BD                                  | 4-21-76  |           |   |         |
| 0057A  | Seep 3 mi. N. of Sulvert, Stillwater Co., 01N.21E.10AB                                      | 4-22-76  |           |   |         |
| 0058A  | Seep 3 mi. N. of Sulvert, Stillwater Co., 01N.21E.10AB                                      | 4-22-76  |           |   |         |
| 0059A  | Seep 3 mi. E. of farm buildings (sample Mo. 11), 01N.21E.08AA                               | 4-22-76  |           |   |         |
| 0060A  | White Bear Cr., So. of Harlan on Hwy 376  | 4-24-76  |           |   |         |
| 0061A  | Peoples Cr., # Hwy 376 So. of Harlan  | 4-24-76  |           |   |         |
| 0062A  | Missouri R., # James Lipp State Rec. Area, D.S. 191   | 4-24-76  |           |   |         |
| 0063A  | Small pond S. of Seely in saline seep area  | 5-25-76  |           |   |         |
| 0064A  | Deer Cr., near Decker, Big Horn Co.   | 6-10-76  |           |   |         |
| 0065A  | Lane Tree Cr., South Pk., Richland Co., 23N.37E.09BD  | 6-15-76  |           |   |         |
| 0066A  | Tributary of E. Redwater Cr., Richland Co., 23N.37E.09BD                                    | 6-15-76  |           |   |         |
| 0067A  | Hartman Cr., Richland Co., 26N.35E.01BB   | 6-15-76  |           |   |         |
| 0068A  | Maple Cr., Daniels Co., 35N.50E.27CB  | 6-17-76  |           |   |         |
| 0069A  | Plentywood Cr., # bridge, Sheridan Co., 35N.54E.16CA  | 6-17-76  |           |   |         |
| 0070A  | Redstone Cr., # Hwy 3, Sheridan Co., 35N.52E.09AD   | 6-17-76  |           |   |         |
| 0071A  | Big Badger Cr., # road, Sheridan Co., 35N.52E.27BA  | 6-17-76  |           |   |         |
| 0072A  | N. Pk. E. Redwater Cr., Richland Co., 26N.35E.01BB  | 6-15-76  |           |   |         |
| 0073A  | Antelope Cr., Sheridan Co., 34N.56E.10DD  | 6-16-76  |           |   |         |
| 0074A  | Charlie Cr., Richland Co., 26N.35E.18BB   | 6-15-76  |           |   |         |
| 0075A  | Jeffrey Cr., Richland Co., 24N.53E.36B  | 6-15-76  |           |   |         |
| 0076A  | Seep 3 mi. E. of Culbertson, Roosevelt Co., 28N.56E.27AD                                    | 6-16-76  |           |   |         |
| 0077A  | Pilot Hwy Cr., # bridge, Richland Co., 24N.52E.16DD   | 6-15-76  |           |   |         |
| 0078A  | Seep N. of Hwy 16, Richland Co., 25N.58E.32DD   | 6-17-76  |           |   |         |
| 0079A  | Pilot Hwy Cr., # Pk., Richland Co., 25N.58E.31DD  | 6-15-76  |           |   |         |
| 0080A  | Little Badger Cr., Richland Co., 26N.35E.28DD   | 6-16-76  |           |   |         |
| 0081A  | Red Bank Cr., Roosevelt Co., 28N.58E.31AC   | 6-16-76  |           |   |         |
| 0082A  | Butte Cr., # bridge, Daniels Co., 35N.67E.12AD  | 6-17-76  |           |   |         |
| 0083A  | Harvey Cr., Sheridan Co., 35N.58E.21CD  | 6-16-76  |           |   |         |
| 0084A  | Shoop Cr., # Hwy 16, Roosevelt Co., 30N.55E.30BB  | 6-16-76  |           |   |         |
| 0085A  | Lost Cr., # Hwy 16, Roosevelt Co., 30N.56E.78BB   | 6-16-76  |           |   |         |
| 0086A  | Pond N. of crossing (Hartsville), Roosevelt Co., 28N.58E.20DD                               | 6-16-76  |           |   |         |
| 0087A  | Sand Cr., Roosevelt Co., 30N.58E.16DD   | 6-16-76  |           |   |         |
| 0088A  | McCoy Cr., # Hwy 3, Sheridan Co., 35N.54E.14BB  | 6-17-76  |           |   |         |
| 0089A  | Crail Cr., Yellowstone Co., 1N.23E.05DD   | 6-24-76  |           |   |         |
| 0090A  | Mo. Mass Cr., Yellowstone Co., 1N.23E.05DD  | 6-24-76  |           |   |         |
| 0091A  | Stream seep, Yellowstone Co., 4N.25E.09CD   | 6-25-76  |           |   |         |
| 0092A  | "Mo. 21", Stillwater Co., 1N.23E.06DD   | 6-24-76  |           |   |         |
| 0093A  | Cove Cr., Yellowstone Co., 1N.24E.15DA  | 6-24-76  |           |   |         |
| 0094A  | Creek, Yellowstone Co., 23N.24E.32CB  | 6-24-76  |           |   |         |
| 0095A  | Small puddle, Yellowstone Co., 4N.25E.06CD  | 6-25-76  |           |   |         |

Appendix B. Genera of non-diatom algae found in the periphyton of surface waters suspected to be influenced by saline seep in eastern Montana.

Chlorophyta (green algae) 25 Genera

Akatiroidesmus  
Bulbovskete  
Chara  
Chlamydomonas  
Chlorococcum  
Chlorogonium  
Cladophora  
Closterium  
Cosmarium  
Ectocarpus  
Glossocystis  
Hormidium  
Hantzschia  
Oedogonium  
Pantodonium  
Planktonophora  
Platyonema  
Rhizoclonium  
Scenedesmus  
Schroederia  
Sphaerocystis  
Spiraea  
Stigeoclonium  
Ulothrix  
Zyrene

Euglenophyta (euglenoid algae) 3 Genera

Euglena  
Phacus  
Volvox

Chrysophyta (golden-brown algae) 8 Genera

Chrysiolopsis  
Chrysomonas  
Chrysosporium  
Diatoma  
Dinobryon  
Gyrodinium  
Triptonema  
Vaucheria

Cyanophyta (blue-green algae) 19 Genera

Anabaena  
Aphanizomenon  
Arthrospira  
Calothrix  
Chroococcum  
Cylindrocapsa  
Heterocapsa  
Lyngbya  
Microcystis  
Nodularia  
Plectonon  
Oscillatoria  
Phormidium  
Rivularia  
Spirulina  
Stigonema  
Synechocystis  
Tolypothrix

Rhodophyta (red algae) 1 Genus

Rhodospira

Cryptophyceae (algae of uncertain position) 1 Genus

Rhodomonas

\*Genera containing species of blue-green algae suspected of producing strains that are toxic to livestock or wildlife.

Appendix C. Percent relative abundance, percent frequency (occurrence), and abundance-occurrence index for diatom taxa identified from surface waters suspected to be influenced by saline seep.

| Taxon   | Abundance (%) | Frequency (%) | Abundance-Occurrence (last x 10,000) | Taxon  | Abundance (%) | Frequency (%) | Abundance-Occurrence (last x 10,000) |
|---|---------------|---------------|--------------------------------------|--|---------------|---------------|--------------------------------------|
| <i>Achnanthes affinis</i>                           | 0.37          | 3             | 1.11                                 | <i>Gomphonema acuminatum</i> var. ?                | t             | 1             | 0.00                                 |
| <i>A. alveol.</i>                                   | 0.01          | 2             | 0.01                                 | <i>G. affine</i>                                   | 0.02          | 3             | 0.06                                 |
| <i>A. dasillum</i>                                  | 0.14          | 8             | 1.12                                 | <i>G. angustatum</i>                               | 0.32          | 26            | 8.32                                 |
| <i>A. flexuella</i>                                 | 0.01          | 2             | 0.02                                 | <i>G. angustatum</i> var. productum                | 0.02          | 1             | 0.02                                 |
| <i>A. Nauckiana</i> var. <i>rostrata</i>            | 0.2           | 2             | 0.02                                 | <i>G. angustatum</i> var. ?                        | t             | 1             | 0.00                                 |
| <i>A. lanceolata</i>                                | 0.24          | 24            | 5.76                                 | <i>G. boscianum</i>                                | 0.07          | 6             | 0.42                                 |
| <i>A. lagopodium</i> var. <i>rhinoceros</i>         | 0.11          | 9             | 0.99                                 | <i>G. connectum</i>                                | 0.01          | 4             | 0.01                                 |
| <i>A. linearis</i>                                  | 0.01          | 2             | 0.02                                 | <i>G. dikhonense</i>                               | 0.03          | 4             | 0.12                                 |
| <i>A. linearis</i> f. <i>curta</i>                  | 9.53          | 43            | 409.79                               | <i>G. gracile</i>                                  | t             | 1             | 0.00                                 |
| <i>A. sinuatis</i>                                  | 0.05          | 5             | 0.25                                 | <i>G. intricatum</i>                               | 0.09          | 12            | 1.08                                 |
| <i>Asphileura pallonioides</i>                      | 0.34          | 26            | 8.84                                 | <i>G. olivaceum</i>                                | 1.47          | 23            | 33.41                                |
| <i>Asphura coffeiformis</i>                         | 3.79          | 29            | 109.91                               | <i>G. olivaceum</i> var. <i>calcareum</i>          | 0.05          | 7             | 0.35                                 |
| <i>A. ovalis</i>                                    | 0.03          | 8             | 0.24                                 | <i>G. parvulus</i>                                 | 0.49          | 39            | 19.11                                |
| <i>A. ovalis</i> var. <i>affinis</i>                | 0.01          | 8             | 0.08                                 | <i>G. tamperlinum</i>                              | 0.01          | 1             | 0.01                                 |
| <i>A. ovalis</i> var. <i>pediculus</i>              | 0.36          | 19            | 7.22                                 | <i>G. truncatum</i>                                | 0.01          | 4             | 0.04                                 |
| <i>A. veneta</i>                                    | 0.42          | 14            | 5.88                                 | <i>C. sp.</i>                                      | 0.02          | 10            | 0.20                                 |
| <i>A. sp.</i>                                       | t             | 1             | 0.00                                 | <i>Gyrodinium acuminatum</i>                       | 0.01          | 5             | 0.05                                 |
| <i>Anomoeoneis ovata</i>                            | 0.01          | 4             | 0.04                                 | <i>G. attenuatum</i>                               | 0.01          | 1             | 0.01                                 |
| <i>A. spinosporophora</i>                           | t             | 2             | 0.02                                 | <i>G. exilis</i>                                   | 0.01          | 1             | 0.01                                 |
| <i>A. vitrea</i>                                    | 0.07          | 5             | 0.35                                 | <i>G. palmonis</i>                                 | 0.21          | 17            | 3.57                                 |
| <i>Asterionella formosa</i>                         | 0.01          | 3             | 0.03                                 | <i>G. spencerii</i>                                | 0.05          | 16            | 0.80                                 |
| <i>Beutleria paradoxus</i>                          | 0.05          | 5             | 0.25                                 | <i>G. spencerii</i> var. <i>curvula</i>            | 0.01          | 2             | 0.02                                 |
| <i>Caloneis acuminata</i>                           | 0.01          | 10            | 0.10                                 | <i>G. sp.</i>                                      | 0.01          | 7             | 0.07                                 |
| <i>C. bacillum</i>                                  | 0.11          | 11            | 1.21                                 | <i>Marstonia amphioxys</i>                         | 0.07          | 23            | 1.41                                 |
| <i>C. hyalina</i>                                   | 0.05          | 1             | 0.05                                 | <i>M. amphioxys</i> var. <i>major</i>              | t             | 1             | 0.00                                 |
| <i>C. ventricosa</i> var. <i>alpina</i>             | t             | 2             | 0.02                                 | <i>Navicula elliptica</i> var. <i>dansoni</i>      | 0.01          | 5             | 0.05                                 |
| <i>C. ventricosa</i> var. <i>sinuata</i>            | t             | 2             | 0.02                                 | <i>N. smithii</i>                                  | 0.17          | 2             | 0.34                                 |
| <i>C. ventricosa</i> var. <i>truncatula</i>         | 0.07          | 7             | 0.49                                 | <i>N. smithii</i> var. <i>laevissima</i>           | t             | 2             | 0.02                                 |
| <i>C. sp.</i>                                       | 0.02          | 2             | 0.06                                 | <i>N. sp.</i>                                      | 0.01          | 4             | 0.04                                 |
| <i>Chaetoceros elaeagni</i>                         | 0.21          | 2             | 0.42                                 | <i>Navicula granulata</i> var. <i>angustissima</i> | t             | 2             | 0.02                                 |
| <i>Cocconeis pediculus</i>                          | 2.19          | 19            | 41.61                                | <i>N. varians</i>                                  | t             | 4             | 0.04                                 |
| <i>C. placotula</i>                                 | 0.65          | 29            | 18.85                                | <i>N. sp.</i>                                      | 0.03          | 3             | 0.09                                 |
| <i>C. placotula</i> var. <i>egyptia</i>             | 1.09          | 14            | 14.17                                | <i>Navicula circulare</i>                          | 0.02          | 7             | 0.14                                 |
| <i>C. placotula</i> var. <i>lineata</i>             | 0.03          | 4             | 0.12                                 | <i>Navicula saccata</i>                            | 0.09          | 8             | 0.72                                 |
| <i>Cylotella glomerata</i>                          | 0.01          | 3             | 0.03                                 | <i>N. arvensis</i>                                 | 0.06          | 7             | 0.42                                 |
| <i>C. kuetzingiana</i>                              | 0.28          | 6             | 1.68                                 | <i>N. atomus</i>                                   | 0.72          | 18            | 12.96                                |
| <i>C. nanum</i>                                     | 2.13          | 46            | 97.98                                | <i>N. arcuolata</i>                                | 0.01          | 1             | 0.01                                 |
| <i>C. sp.</i>                                       | 0.01          | 3             | 0.03                                 | <i>N. bloosii</i>                                  | 0.01          | 1             | 0.01                                 |
| <i>Cylindrocapsa gracilis</i>                       | 0.12          | 15            | 1.80                                 | <i>N. capitata</i>                                 | 0.01          | 2             | 0.02                                 |
| <i>Cyrtoporeia solida</i>                           | 0.01          | 13            | 0.13                                 | <i>N. capitata</i> var. <i>hungarica</i>           | 0.13          | 14            | 1.82                                 |
| <i>Cymbella affinis</i>                             | 0.80          | 22            | 17.60                                | <i>N. cinerea</i>                                  | 0.66          | 15            | 9.90                                 |
| <i>C. aspirocephala</i>                             | 0.01          | 5             | 0.05                                 | <i>N. cinerea</i> var. <i>heufleri</i>             | t             | 2             | 0.02                                 |
| <i>C. distalis</i>                                  | 0.01          | 0.09          | 0.09                                 | <i>N. cinerea</i> var. <i>rostrata</i>             | 5.62          | 66            | 370.92                               |
| <i>C. ovalifrons</i> var. <i>nemopunctata</i>       | t             | 1             | 0.00                                 | <i>N. cilirostrata</i>                             | 0.05          | 12            | 0.60                                 |
| <i>C. distalis</i>                                  | 0.22          | 5             | 1.10                                 | <i>N. cryptosphaera</i>                            | 0.29          | 62            | 79.88                                |
| <i>Cymbella lunata</i>                              | 0.01          | 3             | 0.03                                 | <i>N. cryptosphaera</i> f. <i>terrestris</i>       | 0.16          | 1             | 0.16                                 |
| <i>C. neioidea</i>                                  | 0.01          | 5             | 0.05                                 | <i>N. cryptosphaera</i> var. <i>exilis</i>         | t             | 2             | 0.02                                 |
| <i>C. microcephala</i>                              | 1.32          | 23            | 30.36                                | <i>N. cryptosphaera</i> var. <i>veneta</i>         | 0.16          | 32            | 5.12                                 |
| <i>C. sinuata</i>                                   | 1.78          | 37            | 65.86                                | <i>N. cryptosphaera</i> var. ?                     | 0.16          | 3             | 0.48                                 |
| <i>C. smallii</i>                                   | 0.01          | 2             | 0.02                                 | <i>Navicula cuspidata</i>                          | 0.02          | 14            | 0.28                                 |
| <i>C. parva</i>                                     | 0.03          | 2             | 0.06                                 | <i>N. cuspidata</i> var. <i>obtusum</i>            | 0.01          | 1             | 0.01                                 |
| <i>C. prostrata</i>                                 | 0.01          | 4             | 0.04                                 | <i>N. gottschalkii</i>                             | 0.01          | 2             | 0.02                                 |
| <i>C. pusilla</i>                                   | 0.74          | 20            | 14.80                                | <i>N. graciloides</i>                              | 0.07          | 16            | 0.98                                 |
| <i>C. ruficula</i>                                  | 0.03          | 3             | 0.09                                 | <i>N. halophila</i>                                | 0.02          | 7             | 0.14                                 |
| <i>C. sinuata</i>                                   | 0.16          | 10            | 1.60                                 | <i>N. halophila</i> var. <i>teminostriata</i>      | 0.01          | 2             | 0.02                                 |
| <i>C. triangulum</i>                                | 0.01          | 1             | 0.01                                 | <i>N. heufleri</i>                                 | 0.05          | 7             | 0.35                                 |
| <i>C. umida</i>                                     | t             | 2             | 0.02                                 | <i>N. heufleri</i> var. <i>leptosphaera</i>        | 0.18          | 15            | 2.70                                 |
| <i>C. sp.</i>                                       | 0.01          | 3             | 0.03                                 | <i>N. integra</i>                                  | t             | 1             | 0.00                                 |
| <i>Denticula elaeagne</i>                           | 0.07          | 7             | 0.49                                 | <i>N. jagell</i>                                   | 0.16          | 18            | 2.88                                 |
| <i>D. subtilis</i>                                  | 0.01          | 8             | 0.08                                 | <i>N. laevissima</i>                               | 0.02          | 5             | 0.10                                 |
| <i>D. sp.</i>                                       | 0.05          | 12            | 0.60                                 | <i>N. lanceolata</i>                               | 0.01          | 6             | 0.06                                 |
| <i>Diatoma tenue</i>                                | t             | 1             | 0.00                                 | <i>N. meniscus</i> var. <i>upellensis</i>          | 0.03          | 1             | 0.03                                 |
| <i>D. tenue</i> var. <i>elongatum</i>               | 2.62          | 38            | 107.16                               | <i>N. sinuata</i>                                  | 0.01          | 2             | 0.02                                 |
| <i>D. vulgare</i>                                   | 0.34          | 22            | 7.48                                 | <i>N. sinuata</i>                                  | 0.03          | 3             | 0.09                                 |
| <i>D. vulgare</i> var. <i>breve</i>                 | 0.01          | 2             | 0.02                                 | <i>N. sutina</i>                                   | 0.03          | 11            | 0.33                                 |
| <i>D. vulgare</i> var. <i>secedon</i>               | t             | 1             | 0.00                                 | <i>N. sutina</i> var. <i>undulata</i>              | 0.09          | 5             | 0.45                                 |
| <i>D. sp.</i>                                       | 0.01          | 1             | 0.01                                 | <i>N. sutina</i> var. ?                            | 0.01          | 2             | 0.02                                 |
| <i>Diploneis elliptica</i>                          | 0.03          | 1             | 0.03                                 | <i>N. oblonga</i>                                  | 0.01          | 2             | 0.02                                 |
| <i>D. pusilla</i>                                   | 0.07          | 8             | 0.56                                 | <i>N. odiosa</i>                                   | 0.01          | 2             | 0.02                                 |
| <i>D. sp.</i>                                       | 0.02          | 6             | 0.12                                 | <i>N. pelliculosa</i>                              | 0.01          | 1             | 0.01                                 |
| <i>Entomoneis ornata</i>                            | 0.17          | 17            | 2.89                                 | <i>N. pergerina</i>                                | 0.05          | 24            | 1.20                                 |
| <i>E. paludosa</i>                                  | 0.67          | 34            | 22.78                                | <i>N. prolifera</i>                                | 0.01          | 2             | 0.02                                 |
| <i>E. rostrata</i>                                  | t             | 1             | 0.00                                 | <i>N. pupula</i>                                   | 0.01          | 7             | 0.07                                 |
| <i>E. sp.</i>                                       | t             | 1             | 0.00                                 | <i>N. pupula</i> var. <i>capitata</i>              | t             | 1             | 0.00                                 |
| <i>Eutima adnata</i> var. <i>marginata</i>          | 0.09          | 3             | 0.27                                 | <i>N. pygmaea</i>                                  | 0.56          | 20            | 11.20                                |
| <i>E. argus</i>                                     | 0.01          | 1             | 0.01                                 | <i>N. radiosa</i>                                  | 0.07          | 8             | 0.56                                 |
| <i>E. sorax</i>                                     | 1.13          | 11            | 12.43                                | <i>N. radiosa</i> var. <i>parva</i>                | 0.03          | 8             | 0.24                                 |
| <i>E. turgida</i>                                   | 0.03          | 9             | 0.27                                 | <i>N. rhynchonella</i>                             | 0.34          | 4             | 1.36                                 |
| <i>E. sp.</i>                                       | 0.03          | 7             | 0.21                                 | <i>N. rhynchonella</i> var. <i>germainii</i>       | 0.05          | 2             | 0.10                                 |
| <i>Eunotia curvata</i>                              | t             | 2             | 0.02                                 | <i>N. salinarum</i>                                | 1.22          | 33            | 40.26                                |
| <i>Fraxillaria brevistriata</i> var. <i>inflata</i> | t             | 1             | 0.00                                 | <i>N. salinarum</i> var. <i>intermedia</i>         | t             | 1             | 0.00                                 |
| <i>F. brevistriata</i> var. ?                       | t             | 1             | 0.00                                 | <i>N. secretaria</i> var. <i>apiculata</i>         | 0.22          | 8             | 1.76                                 |
| <i>F. aspicula</i>                                  | 0.05          | 2             | 0.10                                 | <i>N. symmetrica</i>                               | 0.01          | 2             | 0.02                                 |
| <i>F. aspicula</i> var. <i>secolecta</i>            | 1.16          | 2             | 2.32                                 | <i>N. tallidoides</i>                              | 3.20          | 62            | 198.40                               |
| <i>F. constans</i>                                  | 0.03          | 8             | 0.24                                 | <i>N. tripartita</i>                               | 0.83          | 36            | 31.92                                |
| <i>F. constans</i> var. <i>subulima</i>             | 0.01          | 1             | 0.01                                 | <i>N. tripartita</i> var. <i>schizomoides</i>      | 0.01          | 2             | 0.02                                 |
| <i>F. constans</i> var. <i>venter</i>               | 0.03          | 8             | 0.24                                 | <i>N. ventralis</i> var. <i>chilensis</i>          | t             | 1             | 0.00                                 |
| <i>F. crotonensis</i>                               | 0.18          | 6             | 1.08                                 | <i>N. viridula</i>                                 | 0.01          | 5             | 0.05                                 |
| <i>F. leptostauron</i>                              | t             | 1             | 0.00                                 | <i>N. viridula</i> var. <i>avenacea</i>            | 0.82          | 13            | 10.66                                |
| <i>F. vaucheriae</i>                                | 1.01          | 33            | 33.33                                | <i>N. viridula</i> var. <i>rostellata</i>          | 0.03          | 9             | 0.27                                 |
| <i>F. sp.</i>                                       | 0.11          | 7             | 0.77                                 | <i>N. sp.</i>                                      | 0.74          | 46            | 34.06                                |
| <i>Gomphonema hemulense</i>                         | 0.01          | 1             | 0.01                                 | <i>N. affine</i> var. <i>asphirmachus</i>          | 0.01          | 2             | 0.02                                 |
| <i>Gomphonema acuminatum</i>                        | 0.01          | 2             | 0.02                                 | <i>N. binode</i>                                   | 0.01          | 1             | 0.01                                 |
|   |               |               |                                      | <i>N. binode</i>                                   | 0.01          | 1             | 0.01                                 |
|   |               |               |                                      | <i>N. sp.</i>                                      | t             | 2             | 0.02                                 |

t = trace



## Appendix C. (Continued)

| Taxon                          | Abundance<br>(A) | Frequency<br>(F) | Abundance-<br>Frequency<br>(max = 10,000) |
|--------------------------------|------------------|------------------|---|
| Mitsunaka asiolaris            | 2.15             | 48               | 103.20                                    |
| M. acuta                       | 0.04             | 5                | 0.20                                      |
| M. amphibia                    | 0.18             | 20               | 3.60                                      |
| M. angustata                   | t                | 1                | ---                                       |
| M. angustata var. acuta        | 0.01             | 2                | 0.02                                      |
| M. apiculata                   | 0.43             | 54               | 23.22                                     |
| M. bulbosissima                | 0.02             | 1                | 0.02                                      |
| M. capitellata                 | 0.05             | 5                | 0.25                                      |
| M. clausii                     | 0.03             | 3                | 0.09                                      |
| M. closterium                  | t                | 1                | ---                                       |
| M. communis                    | 1.52             | 47               | 65.36                                     |
| M. denticola                   | 0.01             | 3                | 0.03                                      |
| M. dissipata                   | 1.91             | 39               | 74.49                                     |
| M. epiphytica                  | 0.08             | 8                | 0.64                                      |
| M. epithemoides                | t                | 1                | ---                                       |
| M. fasciculata                 | t                | 3                | ---                                       |
| M. filiformis                  | 0.32             | 14               | 4.48                                      |
| M. fonticola                   | 0.07             | 6                | 0.56                                      |
| M. frustulum                   | 4.23             | 69               | 291.87                                    |
| M. frustulum var. subaeoline   | 4.02             | 54               | 217.08                                    |
| M. frustulum var. ?            | t                | 1                | ---                                       |
| M. gametocarpalemsis           | t                | 1                | ---                                       |
| M. gracilis                    | 0.85             | 30               | 25.50                                     |
| M. hartschiana                 | 0.01             | 2                | 0.02                                      |
| M. hungarica                   | 0.13             | 30               | 3.90                                      |
| M. ignota                      | 0.60             | 3                | 1.80                                      |
| M. kutsingiana                 | 0.33             | 8                | 2.64                                      |
| M. linearis                    | 0.12             | 18               | 2.16                                      |
| M. longissima var. reversa     | 0.16             | 56               | 8.96                                      |
| M. lorvessiana                 | 0.01             | 1                | 0.01                                      |
| M. lorvessiana var. subtilis   | 0.01             | 2                | 0.02                                      |
| M. microcephala                | 0.12             | 12               | 1.44                                      |
| M. obtusa                      | 0.09             | 6                | 0.54                                      |
| M. ovalis                      | 0.95             | 32               | 30.40                                     |
| M. palea                       | 0.75             | 90               | 607.50                                    |
| M. palmeana                    | 0.30             | 28               | 8.40                                      |
| M. recta                       | 0.07             | 12               | 0.84                                      |
| M. romana                      | 0.07             | 15               | 1.05                                      |
| M. sigma                       | 0.07             | 14               | 0.98                                      |
| M. sigmoides                   | 0.03             | 16               | 0.48                                      |
| M. stagnorum                   | t                | 3                | ---                                       |
| M. sublinearis                 | 0.04             | 3                | 0.12                                      |
| M. tryblionella                | 0.01             | 9                | 0.09                                      |
| M. tryblionella var. debilis   | 0.03             | 4                | 0.12                                      |
| M. tryblionella var. levidemai | t                | 1                | ---                                       |
| M. tryblionella var. victorise | t                | 1                | ---                                       |
| M. tryblionella var. ?         | t                | 1                | ---                                       |
| M. valdestrata                 | 0.03             | 2                | 0.06                                      |
| M. vermularis                  | 0.01             | 2                | 0.02                                      |
| Mitsunaka vitrea               | t                | 3                | ---                                       |
| M. vitrea var. salinarum       | 0.06             | 12               | 0.72                                      |
| M. viva                        | t                | 1                | ---                                       |
| M. viva var. ?                 | 0.01             | 1                | 0.01                                      |
| M. sp.                         | 0.09             | 17               | 1.53                                      |
| Pinnularia borealis            | 0.01             | 5                | 0.05                                      |
| P. leptocoma                   | t                | 1                | ---                                       |
| P. salaria                     | 0.01             | 8                | 0.08                                      |
| P. viridis                     | t                | 1                | ---                                       |
| P. sp.                         | 0.03             | 9                | 0.27                                      |
| Pluresigma deltoctulium        | 0.26             | 24               | 6.24                                      |
| P. sp.                         | t                | 1                | ---                                       |
| Rholosporonia curvata          | 1.03             | 33               | 33.99                                     |
| Rhopalodia gibba               | 0.11             | 28               | 3.08                                      |
| R. gibba var. ventricosa       | 0.01             | 2                | 0.02                                      |
| R. gibberula                   | 0.01             | 3                | 0.03                                      |
| R. musculus                    | 0.03             | 11               | 0.33                                      |
| Rousselia anthii               | 0.01             | 2                | 0.02                                      |
| Stephanodiscus astraea         | t                | 1                | ---                                       |
| S. dubius                      | 0.01             | 1                | 0.01                                      |
| S. minutus                     | 0.62             | 17               | 10.54                                     |
| Sutroella angustata            | 0.09             | 14               | 1.26                                      |
| S. bisertata var. bifrons      | t                | 1                | ---                                       |
| S. brightwellii                | 0.19             | 2                | 0.38                                      |
| S. lowensis                    | 0.03             | 13               | 0.39                                      |
| S. ovalis                      | 0.01             | 5                | 0.05                                      |
| S. ovata                       | 2.16             | 51               | 110.16                                    |
| S. ovata var. pinnata          | 0.01             | 4                | 0.04                                      |
| S. spiralis                    | 0.01             | 5                | 0.05                                      |
| S. striatula                   | t                | 3                | ---                                       |
| Synedra acuta                  | 0.07             | 8                | 0.56                                      |
| S. affinis                     | t                | 1                | ---                                       |
| S. deltoctasiaca               | t                | 3                | ---                                       |
| S. famulosa                    | 2.77             | 34               | 94.18                                     |
| S. famulosa var. ?             | 1.02             | 1                | 1.02                                      |
| S. fasciculata                 | 0.94             | 30               | 28.20                                     |
| S. fasciculata var. ?          | 0.28             | 1                | 0.28                                      |
| S. himantula                   | 0.49             | 4                | 1.96                                      |
| S. parastictica                | t                | 1                | ---                                       |
| S. pulchella                   | 0.13             | 8                | 1.04                                      |
| S. pulchella var. lacustris    | t                | 1                | ---                                       |
| S. radiana                     | 0.07             | 10               | 0.70                                      |
| S. rumpens                     | 0.49             | 9                | 4.41                                      |
| S. ulna                        | 1.22             | 33               | 40.26                                     |
| S. ulna var. asphirmochus      | t                | 1                | ---                                       |
| S. ulna var. contracta         | 0.06             | 7                | 0.42                                      |
| S. ulna var. danica            | 0.01             | 1                | 0.01                                      |
| S. sp.                         | 0.03             | 6                | 0.18                                      |
| Thalassiosira fluvialilis      | 0.49             | 15               | 7.35                                      |

t = trace

Appendix B. Marginal diversity (H), Simpson diversity (H'), total dissolved solids (TDS), and specific conductance (SC) at the 100 sites sampled.

| Station No. | H    | H'   | TDS    | SC     |
|-------------|------|------|--------|--------|
| 0017A       | 4.94 | .142 | 478    | 600    |
| 0017A       | 4.46 | .145 | 983    | 1191   |
| 0018A       | 5.91 | .047 | 368    | 502    |
| 0019A       | 6.17 | .046 | 2396   | 3006   |
| 0020A       | 5.18 | .069 | 451    | 552    |
| 0021A       | 5.79 | .066 | 421    | 536    |
| 0022A       | 5.51 | .066 | 1722   | 1910   |
| 0023A       | 3.86 | .012 | 693    | 1071   |
| 0024A       | 4.04 | .079 | 457    | 559    |
| 0025A       | 2.99 | .031 | 420    | 529    |
| 0037A       | 3.91 | .082 | 800    | 989    |
| 0038A       | 5.17 | .084 | 691    | 864    |
| 0039A       | 5.37 | .076 | 628    | 706    |
| 0040A       | 5.16 | .094 | 450    | 560    |
| 0041A       | 3.99 | .048 | 4672   | 5270   |
| 0042A       | 5.76 | .062 | 615    | 760    |
| 0043A       | ---  | ---  | 1738   | 2158   |
| 0109A       | 4.24 | .007 | 1718*  | 2092*  |
| 0110A       | 2.99 | .059 | 458    | 575    |
| 0111A       | 2.26 | .019 | 14669* | 17000* |
| 0112A       | 4.78 | .048 | ---    | ---    |
| 0113A       | 0.50 | .020 | 3210*  | 3390*  |
| 0114A       | 2.41 | .038 | 16169* | 19000* |
| 0117A       | ---  | ---  | 1031*  | 1190   |
| 0138A       | 3.53 | .079 | 874    | 1190   |
| 0139A       | 2.90 | .020 | 1100*  | 1272   |
| 0140A       | 2.48 | .009 | 2097*  | 2445   |
| 0141A       | 3.61 | .075 | 3452   | 4184   |
| 0142A       | 1.46 | .022 | 2914   | 3486   |
| 0143A       | 3.62 | .078 | 649*   | 793*   |
| 0144A       | 3.65 | .012 | 467*   | 579*   |
| 0145A       | 3.26 | .040 | 659*   | 800*   |
| 0146A       | 2.12 | .057 | 436*   | 490*   |
| 0147A       | 4.07 | .014 | ---    | ---    |
| 0148A       | 3.44 | .018 | 12669  | 12000  |
| 0149A       | 2.23 | .086 | 7346*  | 8500   |
| 0150A       | 2.09 | .077 | 7789   | 8800   |
| 0151A       | 1.28 | .036 | 18407  | 23000  |
| 0152A       | 3.06 | .048 | 2999   | 3347   |
| 0153A       | 3.37 | .062 | 3439*  | 13500  |
| 0154A       | 2.65 | .025 | 7303   | 7770   |
| 0155A       | 4.40 | .049 | ---    | ---    |
| 0156A       | 3.60 | .070 | 784*   | 900*   |
| 0157A       | 3.97 | .022 | 996*   | 679*   |
| 0158A       | 2.68 | .073 | 3106   | 3550   |
| 0159A       | 5.56 | .092 | 5075*  | 5380*  |
| 0160A       | 4.16 | .086 | 1201*  | 1391   |
| 0161A       | 3.30 | .019 | 7400   | 8210   |
| 0171A       | 5.12 | .000 | 3206*  | 3749   |
| 0172A       | 3.93 | .007 | 866    | 1107   |
| 0173A       | 5.51 | .080 | 853    | 1704   |
| 0174A       | 4.68 | .002 | 1942   | 2315   |
| 0175A       | 6.65 | .084 | 684    | 846    |
| 0176A       | 4.30 | .091 | 3630   | 4469   |
| 0177A       | ---  | ---  | 306    | 452    |
| 0178A       | 4.55 | .070 | 4534   | 5017   |
| 0179A       | 1.28 | .041 | 7346   | 8220   |
| 0180A       | 4.88 | .063 | 755    | 963    |
| 0181A       | 5.64 | .002 | 844    | 1116   |
| 0182A       | 1.91 | .000 | 6798   | 7390   |
| 0183A       | 4.42 | .096 | 2343   | 2733   |
| 0184A       | 4.54 | .088 | 1152   | 1380   |
| 0185A       | 4.57 | .046 | 2253   | 2407   |
| 0186A       | 7.26 | .072 | 912    | 1160   |
| 0187A       | 5.46 | .015 | 746    | 956    |
| 0188A       | 6.34 | .001 | 899    | 1186   |
| 0189A       | 1.89 | .030 | 6410*  | 3910*  |
| 0190A       | 1.65 | .028 | 2148   | 2297   |
| 0191A       | 4.38 | .086 | 1166   | 1417   |
| 0192A       | 6.71 | .086 | 944*   | 1088   |
| 0193A       | 5.49 | .090 | 3634   | 4287   |
| 0194A       | 5.15 | .015 | 3613   | 4507   |
| 0195A       | 3.50 | .028 | ---    | ---    |
| 0196A       | 2.24 | .094 | 1314   | 1736   |
| 0197A       | 3.15 | .090 | 3028   | 3628   |
| 0198A       | 2.31 | .062 | 1401   | 1989   |
| 0199A       | 3.70 | .071 | 5041   | 5760   |
| 0200A       | 4.02 | .065 | 1262   | 1647   |
| 0201A       | 2.33 | .041 | 1642   | 2290   |
| 0202A       | 3.19 | .065 | 5119*  | 6000*  |
| 0203A       | 1.29 | .015 | 12769* | 15000* |
| 0204A       | 1.64 | .042 | 6394*  | 7500*  |
| 0205A       | 1.46 | .001 | ---    | ---    |
| 0206A       | 6.13 | .036 | ---    | ---    |
| 0207A       | 2.90 | .068 | 9070*  | 8700*  |
| 0208A       | 4.53 | .066 | 312*   | 368*   |
| 0209A       | 3.05 | .074 | 23819* | 28000* |
| 0210A       | 2.54 | .088 | 3343*  | 3910*  |
| 0211A       | 1.04 | .044 | 6394*  | 7500*  |
| 0212A       | 2.91 | .089 | 8094*  | 9500*  |
| 0213A       | 4.13 | .018 | 1064*  | 12500* |
| 0214A       | 6.69 | .096 | 1311*  | 1520*  |
| 0215A       | 7.24 | .010 | 1031*  | 1190*  |
| 0219A       | 0.84 | .016 | 42519* | 50000* |
| 0220A       | 1.07 | .030 | 14669* | 17000* |
| 0221A       | 3.19 | .074 | 42519* | 50000* |
| 0222A       | 1.47 | .016 | 16849* | 19800* |
| 0223A       | 2.12 | .080 | 28134* | 33100* |
| 0224A       | 2.55 | .087 | 11069* | 13000* |
| 0225A       | 2.55 | .071 | 5119*  | 6000*  |

\*Water sample taken on a different date than algae sample, either at the same site or a nearby site on the same water.

#Field conductivity measurement.

\*TDS estimated from SC based on the regression equation  $T = 0.85T + 19$ , where  $T$  is TDS and  $T$  is SC.



